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THESIS

MEASURING SATISFACTION IN THE PROGRAM MANAGER - PROCURING CONTRACTING OFFICER RELATIONSHIP

by

John S. Gray

December 1997

Principal Advisor: Susan Hocevar
Associate Advisor: Jeffrey Cuskey

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When Executive Order 12862 was signed on September 11, 1993, Federal agencies were directed to analyze the extent to which their customers were satisfied with the agency's products/services. To comply with this Executive Order, Navy contracting offices require an effective methodology for developing an instrument to measure the satisfaction of their customers, Navy Program Managers. The purpose of this thesis was to develop and provide a methodology to Procuring Contracting Officers for measuring an individual Program Manager's level of satisfaction with the contracting services provided him. The approach utilized in this methodology has two components: to identify the dimensions and attributes which influence an individual Program Manager's satisfaction formation construct; and to translate these dimensions and attributes into measurable behaviors or activities. The measurement instrument developed through this research furnishes a Navy contracting office with useful information concerning their customers' needs and perceptions, and provides a means of evaluating the effectiveness of the Procuring Contracting Officer as measured by the satisfaction of the Program Manager. This thesis provides detailed instructions for implementing this methodology, instructions for performing the data collection process, and two illustrative customer satisfaction measurement instruments.

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MEASURING SATISFACTION IN THE PROGRAM MANAGER - PROCURING CONTRACTING OFFICER RELATIONSHIP

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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

When Executive Order 12862 was signed on September 11, 1993, Federal agencies were directed to analyze the extent to which their customers were satisfied with the agency's products/services. To comply with this Executive Order, Navy contracting offices require an effective methodology for developing an instrument to measure the satisfaction of their customers, Navy Program Managers. The purpose of this thesis was to develop and provide a methodology to Procuring Contracting Officers for measuring an individual Program Manager's level of satisfaction with the contracting services provided him. The approach utilized in this methodology has two components: to identify the dimensions and attributes which influence an individual Program Manager's satisfaction formation construct; and to translate these dimensions and attributes into measurable behaviors or activities. The measurement instrument developed through this research furnishes a Navy contracting office with useful information concerning their customers' needs and perceptions, and provides a means of evaluating the effectiveness of the Procuring Contracting Officer as measured by the satisfaction of the Program Manager. This thesis provides detailed instructions for implementing this methodology, instructions for performing the data collection process, and two illustrative customer satisfaction measurement instruments.

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LIST OF SYMBOLS, ACRONYMS AND/OR ABBREVIATIONS

AHP - Analytical Hierarchy Process
APB - Acquisition Program Baseline
CICA - Competition in Contracting Act
DAES - Defense Acquisition Executive Summary
DFARS - Defense Federal Acquisition Regulation Supplement
DoD - Department of Defense
DoDD - Department of Defense Directive
FAR - Federal Acquisition Regulation
FASA - Federal Acquisition Streamlining Act
GAO - General Accounting Office
GPRA - Government Performance and Results Act
MDA - Milestone Decision Authority
NAPS - Navy Acquisition Procedures Supplement
NAVAIR - Naval Air Systems Command
NPR- National Performance Review
NPS - Naval Postgraduate School
OMB - Office of Management and Budget
PCO - Procuring Contracting Officer
PM - Program Manager
SECDEF - Secretary of Defense

I. INTRODUCTION

A. BACKGROUND

Are my customers satisfied? Without question, it is important for leaders of service organizations to know the answer to this question. The competitive forces of today's marketplace demand that a service organization meet or exceed industry standards in providing customer satisfaction, or risk losing its market share and customer base. For this reason, customer satisfaction is one of the most widely embraced concepts in business. According to an ASQC/Gallup survey conducted in 1987, "Eighty-six percent of senior executives from Fortune 500 companies consider customer satisfaction to be extremely important to their company and rank it a higher priority than 10 other goals, including productivity and company reputation" (as cited in Barsky, 1995, p. 2). This has provided a strong impetus for service organizations in private industry to invest a great deal of time, energy, and money to measure customer satisfaction. Acknowledging the significance of customer satisfaction, the prestigious Malcolm Baldridge National Quality Award allocates thirty percent of the award criteria to this area. (Gray & Harvey, 1992)

Service organizations in the public sector, including the Department of Defense (DoD), have also begun to recognize the importance of customer satisfaction. Recently, the DoD has embraced the adoption of "best commercial practices" as a method to improve the way DoD conducts business. (Perry, 1994) A basic tenet of this philosophy is a focus on the customer as the only significant judge in determining the quality of an organization's output. According to AT&T Corporation, "It is only when you analyze data from the perspective of your customer's requirements that you really begin to know how well your process is working, that is, how well process outputs conform to customer

requirements" (1989, p. 37). Accepting this, it is critical to the organization's success to determine how the products and services it provides are valued by its customers.

The importance of customer satisfaction has also been recognized in the Federal acquisition system, which can be seen by examining the Federal Acquisition Regulation (FAR). The FAR is the primary regulation governing the Federal acquisition system. It is used by all executive agencies to acquire supplies and services. The FAR's Guiding Principles for the Federal acquisition system states that this system,

> will satisfy the customer in terms of cost, quality, and timeliness of the delivered product or service...The system must be responsive and adaptive to customer needs, concerns, and feedback. Implementation of acquisition policies and procedures, as well as consideration of timeliness, quality and cost throughout the process, must take into account the perspective of the user of the product or service (1996, 1.102).

Navy program offices, and the Program Managers (PMs) who lead them, are charged with overall responsibility for a designated fleet requirement, including its acquisition. Many of the tasks necessary to acquire these fleet requirements are performed by a separate office, called a Navy contracting office. The key person within a Navy contracting office who affects the acquisition process is the Procuring Contracting Officer (PCO). Because the PM relies on the PCO to perform all of the contracting actions necessary for his program, the relationship between a PCO and a PM can be considered a supplier-customer relationship. Program offices and contracting offices, and the PMs and PCOs who lead them, must work together as a team to achieve timely, successful acquisitions. Therefore, measuring the effectiveness of the PCO (the supplier) in meeting the needs and expectations of the PM (the customer) should provide valuable information for improving the process used to acquire fleet requirements.

Unfortunately, customer satisfaction is intangible; an attitude, seeming to defy attempts to be accurately measured. Nevertheless, many contracting offices have not hesitated to develop local customer satisfaction measurement procedures. But how can these decision-makers be sure their method of measuring satisfaction is effective; that it provides meaningful information which can be used to improve their performance? Does their method provide a complete assessment of whether their customers are satisfied? Does their method measure aspects of the organization's performance of most concern to their customers? As noted by Comola, "It is important that we measure, but it's also crucial that we assess the right things - those outputs of highest value to our customers" (1988, p. 59). This question is crucial because an improperly constructed measurement method could potentially be detrimental to the contracting office's continuous process improvement efforts.

Contracting office decision-makers need a customer satisfaction measurement instrument which can be relied upon to provide complete, accurate, and meaningful information about the customer's level of satisfaction. As noted by Globerson (1991), "You can't manage what you don't measure" (p. 1). Such a measurement instrument, or metric, would promote accurate measurement of the satisfaction formation process to aid Contracting Officers in assessing their performance.

What is a Metric? A metric is nothing more than a standard measure to assess performance in a particular area over time. In determining metrics for the acquisition process, Przemieniecki (1993) states that for metrics to be meaningful,

> ...they must present data that allows us to take appropriate improvement actions. They should also be customer oriented and should foster process understanding, thereby motivating actions to continually improve the way

> we do business. In this way, metrics can support organizational strategic planning by allowing us to get insight into how the acquisition processes are meeting user needs (p. 87).

B. PURPOSE

The purpose of this thesis research was to develop a customer satisfaction metric that a U. S. Navy Procuring Contracting Officer could employ to measure the customer's (the Program Manager) level of satisfaction. The approach utilized in developing this metric has two components: first, to identify the dimensions that influence customer satisfaction; then, to translate those dimensions into measurable behaviors or activities. This metric does not attempt to measure the customer's attitude (Are you satisfied?), but rather how well the Procuring Contracting Officer has accomplished those behaviors and activities which result in the Program Manager's satisfaction. In this way, the metric provides actionable data, pinpointing exactly which aspects of the PCO's performance require attention.

It is reasonable to assume that the higher the level of service provided by the contracting office, the more satisfied the Program Manager would be. However, it would be useful for the Procuring Contracting Officer to understand which attributes of the relationship are most valued by the Program Manager so that those product or process aspects that most influence the Program Manager's satisfaction can be targeted for improvement. To gain this understanding, an analysis was performed of this specific supplier-customer relationship; from this research, a customer satisfaction measurement tool was developed.

The metric developed through this research furnishes a Navy contracting office with useful information concerning the Program Manager's perceptions and needs, and

provides a means of measuring the effectiveness of the contracting office; that is, measuring the extent to which the contracting office is satisfying the needs of its customers. In conjunction with other management tools, this effectiveness measure would assist contracting office decision-makers to: perform strategic and tactical planning; allocate scarce contracting office resources; and identify those elements of the Program Manager- Procuring Contracting Officer relationship that must be exceptionally delivered (within the limits of statutory boundaries) to maximize customer satisfaction.

C. METHODOLOGY

The initial phase of this research focused on understanding the acquisition environment in which customer satisfaction will be measured and examining current academic knowledge concerning customer satisfaction measurement. This was accomplished by examining the specific roles, responsibilities, and authority of the Program Manager and the Procuring Contracting Officer. This knowledge helped to increase understanding and appreciation of this customer/supplier relationship. In addition, literature was reviewed which related to social psychology of interpersonal relationships, customer service, customer satisfaction, and management.

After performing these reviews, the factors most relevant in attaining satisfaction for a Program Manager were identified. First, preliminary research was conducted to develop a generic "menu" of customer satisfaction dimensions (and the attributes which describe each dimension). Second, Program Managers were interviewed to determine their expectations concerning the Procuring Contracting Officer's performance. These interviews resulted in the identification of: which of the dimensions and attributes included in the generic "menu" were relevant to a Program Manager's personal

satisfaction; the specific performance expectations for the relevant attributes for each Program Manager; and a determination of the relative importance of each relevant satisfaction dimension to Program Managers. From this information, a metric tailored for measuring the satisfaction of an individual Program Manager was developed.

D. JUSTIFICATION FOR THE STUDY

There are three main reasons for studying this subject. First, although extensive research has been conducted on customer satisfaction measurement, little research has focused on customer satisfaction issues in the acquisition process. Second, customer satisfaction measurement has been given strong emphasis by the Executive Branch. Finally, recent research strongly supports customer satisfaction measurement as an important aspect of an organization's continuous improvement efforts. Each of these reasons is discussed below.

1. Despite the extensive amount of research that has been gathered to date concerning customer service and customer satisfaction issues, there has been little research to determine the optimal method for measuring customer satisfaction in the PM - PCO relationship. Without this knowledge, it is difficult for contracting offices to implement effective customer satisfaction measurement programs. Therefore, customer satisfaction measurement should be more fully embraced by the acquisition community because, no one knows better the quality of the service provided than the recipient.

2. The vision set forth in Vice President Al Gore's 1993 National Performance Review (NPR) was to re-establish customer-driven Government services. The NPR directed Government agencies to continually ask customers what they want and whether they are satisfied. Additionally, agencies were to: establish customer satisfaction

performance standards; to measure performance against these standards; and to allocate resources to maximize satisfaction. (Gore, 1993)

President Clinton has also taken bold steps to redefine the way the Federal Government conducts business. As a result, for Executive departments of the Federal Government, measuring customer satisfaction is no longer the exception but the rule. President Clinton signed Executive Order (EO) 12862 - "Setting Customer Service Standards" on September 11, 1993 which requires Federal agencies to survey their customers and obtain customer feedback for improving its products and services. This order defines "customer" as any individual or entity who is directly served by a department or agency. (Clinton, 1993)

EO 12862 requires agencies to search for best industry methods and incorporate them into current practices, as appropriate. EO 12862 dictates that the customer survey instrument specifically include at least the following:

> a. A determination of customer standards for every quality dimension of an agency's products/services. These standards should be summarized from the quantitative answers provided by the survey respondents.
>
> b. An analysis of the extent to which customers are satisfied with the quality of an agency's products/services. Customer satisfaction scores can be aggregated from the individual customer scores provided by the survey respondents.
>
> c. An evaluation of quality gaps between an agency's products/services and the customer's expectations. A summary of the delivery-expectation quality gaps can be obtained from the quantitative scores provided by the survey respondents.
>
> d. A summary of the relative importance that customers attach to each quality dimension of an agency's products/services. Relative importance can be derived by comparing the customer's importance scores on the quality factors with the total of all customer quality-importance scores.

e. An assessment of overall quality performance. Such an assessment should be based upon the construction of the quality index, which is derivable from steps (a) through (d) above. The quality index would provide an agency with an estimate of the percentage of customer standards that it is now satisfying.

f. An implementation plan that prioritizes the areas most in need of improvement. The quality index can be used to show the effect that closing each delivery-expectation gap would have on the agency's overall quality performance. The customer's concerns with expenditures also should be compared with quality-improvement possibilities. In this way, an agency can target the most fruitful avenues for process improvement and performance enhancement (Clinton, 1993, Section 1).

To execute the provisions of Executive Order 12862, teams of Government agencies embarked on a series of benchmarking studies. (NPR, 1995) The lessons learned through these benchmarking studies have been published by the Federal Benchmarking Consortium to assist Federal agencies in complying with this Executive Order (NPR, 1995). Unfortunately, the guidance provided to date by the Federal Benchmarking Consortium seems to be directed toward decision-makers at the agency level, which does not satisfy the needs of contracting office decision-makers at lower levels within Federal agencies. The customer satisfaction metric developed through this research, would assist these lower-level decision-makers to comply with EO 12862.

3. There is a preponderance of literature that supports the concept that successful organizations should constantly assess their performance in all dimensions of their business, including customer satisfaction. Peterson and Wilson (1992) state, "virtually all company activities, programs, and policies should be evaluated in terms of their contribution to satisfying customers" (p. 61). These evaluations will assist organizational decision-makers to improve their management processes and methods. Globerson (1991) believes "a perfect management system would have completely accurate measures of all

aspects of an organization's operations and would always be able to accurately identify the needed improvements and the required changes" (p. x). A measurement instrument which provides meaningful customer satisfaction information would represent one small step toward this "perfect" management system.

E. RESEARCH OBJECTIVES

One objective of this thesis was to determine which attributes most contribute to satisfaction between a service-provider (a U. S. Navy Procuring Contracting Officer) and one of her customers (a U. S. Navy Program Manager). From an examination of this relationship, the most appropriate criteria for measuring customer satisfaction were identified. A second objective was to develop a tailored customer satisfaction metric that would provide Procuring Contracting Officers with more meaningful information than that provided through other, more traditional customer satisfaction measurement methods.

The information obtained through this metric may foster understanding within Navy contracting offices of what specific actions are required to achieve, maintain and enhance the satisfaction of customers. This information can then be utilized to modify current procedures used to perform the contracting function so that service to customers is improved. It is hoped that this metric will benefit not only Navy contracting offices, but also other military service and Government contracting offices in general.

F. RESEARCH QUESTIONS

The primary research question is as follows:

1. How can the concept of customer satisfaction measurement best be applied to the PM - PCO relationship?

The subsidiary research questions are as follows:

1. What are the factors which inhibit or support the customer satisfaction formation process?

2. What aspects of the PM - PCO relationship are of most importance to the Program Manager in attaining satisfaction with the service provided by the Procuring Contracting Officer?

3. What quantitative or qualitative data are necessary to create a customer satisfaction metric for this relationship?

4. How does the customer satisfaction metric developed through this research provide complete, accurate, and meaningful information?

G. SCOPE , LIMITATIONS, AND ASSUMPTIONS

The scope of this thesis was to develop a prototype customer satisfaction measurement instrument (metric) tailored to measure the level of satisfaction of an individual Program Manager. Therefore, the foundation of this metric was the development of a generic metric development process. This generic process would result in the production of a tailored metric which reflects the specific requirements of each individual Program Manager.

One limitation of this metric was that real-world acquisition process constraints have not been directly incorporated into the measurement instrument. A Procuring Contracting Officer must operate within certain boundaries defined by law and other regulatory entities, which place certain constraints on his activities. These constraints may hinder the Procuring Contracting Officer's ability to meet or exceed the level of service desired by the Program Manager, inhibiting the formation of customer satisfaction. These

real world acquisition process constraints were indirectly incorporated into the metric only to the extent that they influence the Program Manager's expectations of the Procuring Contracting Officer's performance.

This research was limited to an examination of the interaction between the Procuring Contracting Officer and two of her customers (Program Managers). This relationship represents just one of the Procuring Contracting Officer's many external and internal customer relationships, all of which she must attempt to satisfy.

The following assumptions were made concerning the development of this customer satisfaction metric:

1. For a Program Manager to be satisfied with his relationship with the Procuring Contracting Officer, the Procuring Contracting Officer must provide service which meets or exceeds the Program Manager's expectations of performance.

2. The Program Manager is able to identify a list of attributes she considers relevant to the formation of the Program Manager's personal satisfaction.

3. The attributes identified by the Program Manager are not situationally dependent. The list of attributes remains consistent, no matter what type of contracting service is provided by the Procuring Contracting Officer.

4. The Program Manager is able to translate this "list of attributes" into a "hierarchy" based on each attribute's relative importance to the Program Manager.

5. The position of each attribute in the "hierarchy of attributes" remains consistent over a significant period of time (approximately one year).

6. The position of each attribute in the "hierarchy of attributes" remains consistent no matter what type of contracting service is provided.

7. A Procuring Contracting Officer has sufficient control over his activities such that he is capable of modifying his performance to meet or exceed the performance expectations of the Program Manager.

8. A Program Manager's time is precious. The metric development process should require as little of the Program Manager's time as possible to collect the information necessary to develop the tailored customer satisfaction metric.

H. OVERVIEW AND ORGANIZATION

This thesis is divided into six chapters. This chapter has provided background concerning the growing interest in customer satisfaction measurement, furnished justification for pursuing this topic, and outlined the purpose of this thesis. In addition, the research objectives, methodology, scope, limitations, and assumptions have been discussed.

Chapter II reviews the acquisition environment in which Navy contracting offices and Navy program offices must operate. This chapter furnishes an overview of the acquisition process, reviews the Navy contracting function and Navy program management function including the responsibility and accountability of a Navy Procuring Contracting Officer and a Navy Program Manager. Additionally, it discusses the relationship between the Procuring Contracting Officer and the Program Manager.

Chapter III provides a literature review. Literature from the fields of social psychology, customer satisfaction, customer service, and management have been examined. These bodies of literature form the theoretical basis for this thesis.

Chapter IV identifies and describes the methodology, procedures, and activities used in developing the customer satisfaction metric. Specifically, this chapter documents:

how the data collection apparatus and data collection process were developed; how the apparatus was used to identify specific satisfaction dimensions and attributes considered relevant to the Program Manager; how the Program Manager's performance expectations concerning each relevant attribute was determined; and finally; how the relative importance of the satisfaction dimensions to the Program Manager was determined.

Chapter V presents and analyzes the results of the data collection process. This chapter discusses the implications of the obtained results to the data collection process, and analyzes the results from the perspective of the literature review.

Chapter VI provides: conclusions based on the research results, recommendations for improving the customer satisfaction measurement program, and areas for further study.

I. SUMMARY

Customer satisfaction is an important aspect of performance that should be measured and analyzed to facilitate continuous process improvement efforts. According to Globerson (1991), "the survival of organizations, and indeed of the managers that run them, will depend on an ability to evaluate performance by measuring results, comparing them to expectations, and taking action" (p. 1). The premise of this thesis was that to achieve customer satisfaction, leaders of service organizations must first know what their customer wants and expects, and then deliver it to them. Through the research efforts embodied in this thesis, a customer satisfaction metric was developed for Procuring Contracting Officers to utilize in measuring the satisfaction of Program Managers.

II. THE DOD ACQUISITION PROCESS

The purpose of this chapter is to provide background information concerning key facets of the Department of Defense (DoD) acquisition process considered pertinent to this study, and to impart an appreciation of the issues surrounding customer satisfaction measurement in this process. This discussion is divided into four areas: overview of the DoD acquisition process; description of the U.S. Navy contracting function; description of the U. S. Navy Program Management function; and a discussion of the PM - PCO relationship.

A. OVERVIEW OF THE DOD ACQUISITION PROCESS

> The United States of America is unique among nations in many ways. Not the least of its uniqueness is the method or process by which the Federal Government obtains the supplies and services necessary for it to function. The method is generally referred to as the Acquisition Process. It is by this process that the Government enters into contracts with the private sector of our country, as well as those in foreign countries, so that they may acquire those supplies and services (Hearn, 1996, p. 3).

The variety of supplies and services required to support a modern military is truly staggering, including almost every conceivable item, from belt buckles to aircraft carriers. Tens of thousands of prime contractors, and hundreds of thousands of subcontractors and other suppliers are involved in the development and manufacture of these items. The cost of these supplies and services to the military is equally staggering. The budget for the Defense Department in fiscal year 1996 was $244.2 billion, with approximately $76 billion of this amount designated for the Navy. (NPS, 1996) In 1986, while analyzing the DoD acquisition process, the Packard Commission noted that the DoD purchased more than General Motors, EXXON and IBM combined, and completed "almost 15 million separate transactions per year - or an average of 56,000 contract actions every working day"

(Packard Commission, 1986, p. 43). Acknowledging these facts, this commission concluded that defense acquisition represents the largest, and most important business enterprise in the world.

The two most common methods utilized by the DoD to obtain needed supplies and services are contracting with the private sector or utilizing in-house Government resources. (Cibinic & Nash, 1977) As a matter of policy, the Government prefers to acquire non-recurring commercial activities through contracts with the private sector. (OMB, 1996) This policy allows the Government to concentrate on its own areas of expertise while taking advantage of the special capabilities offered by the private sector. (Kelman, 1990) Office of Management and Budget Circular No. A-76 sets forth the cost principles and competition procedures to determine when services should be performed in-house or acquired from the private sector. (OMB, 1996)

Of all the requirements procured by the DoD, the acquisition of weapon systems almost certainly represents the greatest commitment of time, money, and personnel. For this reason, weapon system acquisition programs offer the DoD with the greatest potential for success, but also for failure. To foster program success, an acquisition program must be supported by an effective PM - PCO relationship. Therefore, this research effort has focused on an examination of this relationship within a weapon system acquisition program.

1. Background

The acquisition of weapon systems has not always been as complicated as it is today. When the DoD was first formed after World War II, there was no formal authority which controlled acquisition. (Przemieniecki, 1993) The two statutes governing the

process at the end of World War II were the Armed Services Procurement Act of 1947 and the Federal Property and Administrative Services Act of 1949. (Cibinic & Nash, 1977) Although preferring the sealed bidding process, these two Acts permitted contracts to be awarded by negotiation if approved by the head of the procuring activity. (Cibinic & Nash, 1977) During this period, acquisition was a "straight-forward process emphasizing simplicity, reliability, and producibility" (Przemieniecki, 1993, p. 13). This is not to imply the process was without problems. DoD acquisition professionals have always been challenged to find an equitable means of balancing risks and rewards in the process of awarding contracts to the private sector. (Cleland, Gallagher, and Whitehead, 1993)

The increased complexity of the DoD acquisition process is in part the result of increased Congressional involvement. Congress has felt the need to intercede in the process due to the frequency with which problems have arisen. In the past, the DoD has been plagued with problems in acquiring weapon systems, such as: weapon systems which take longer to field than expected; weapon systems which do not perform to predicted levels; large cost overruns; and difficulties in production and support of fielded weapon systems. (GAO, 1992) Congressional solutions to these problems have varied, including: adding controls; placing very specific requirements for programs in annual budget legislation; decentralizing; increasing management layers; streamlining; and increasing the number of certifications contractors are required to submit. (GAO, 1992; Przemieniecki, 1993; Hearn, 1996) By the early 1980s, the cumulative effect of Congress' involvement in the acquisition process had resulted in an overwhelmingly complex, constrained, and highly confusing acquisition process. (Packard Commission, 1986) The Competition in Contracting Act (CICA) of 1984 is a prime example of this phenomenon. Congress

perceived that the DoD was overly reliant on sole-source contracts. To counteract this perception, CICA was passed, emphasizing competition as a key aspect of the acquisition process. (Przemieniecki, 1993)

Today, the acquisition reform pendulum has swung toward process simplification. Congress is in the midst of an effort to "commercialize" and streamline the acquisition process. This has caused sweeping changes in the DoD acquisition process, impacting the manner in which all military organizations now perform their mission. (Litman & Wheeler, 1997). New legislation, such as Executive Order 12862, the Government Performance and Results Act (GPRA), and the Federal Acquisition Streamlining Act (FASA) have mandated: the incorporation of commercial contract terms and conditions in Government contracts to the maximum extent possible; an emphasis be placed on the use of performance specifications; the acquisition of commercial items whenever possible; the use of performance measurement; and the creation of a "results-oriented" acquisition system. (Litman & Wheeler, 1997; Heberling, 1995)

This new legislation also has the potential to greatly affect the PM - PCO relationship. As noted by Litman and Wheeler (1997),

> Government procurement offices, traditionally a monopoly service provider, normally have not had the motivation to continually evaluate and improve their products, until now. With downsizing, the rise of fee-for-service organizations, and the new Government-wide emphasis on outcomes instead of process, procurement organizations suddenly have powerful incentives to measure their performance and use the results to improve their efficiency (p. 15).

Through these influences, the acquisition process is more streamlined. However, it is still faced with declining DoD resources, continuous modification of procurement regulation,

and a shrinking industrial base, all of which add to the challenge of doing business in the defense industry. (Cleland, Gallagher, & Whitehead, 1993)

2. The Acquisition Environment

Cleland, Gallagher and Whitehead (1993) suggest that three aspects of the DoD acquisition environment are worthy of consideration: 1) military equipment is generally designed at the very edge of the state of the art; 2) the DoD acquisition system does not operate like a free-enterprise system and; 3) authority over the acquisition process is diffused among many participants. Developing state of the art military equipment inherently requires close collaboration from everyone involved in the acquisition process, from the defense contractor who manufactures the equipment to the military warfighter who will ultimately use the equipment. The fact that there is often only one buyer and one seller in the DoD acquisition environment eliminates many of the market forces that foster increased efficiency. Additionally, the acquisition process has been characterized as one of "highly constrained management flexibility, derived from the diffusion of acquisition authority among large numbers of Governmental entities and individuals, involving many of the various branches of Government" (Cleland, Gallagher, & Whitehead, 1993, p. 1.9). Indeed, various representatives from the Office of the Chief of Naval Operations, the Secretary of the Navy, the Secretary of Defense, the General Accounting Office, Congress, the media and the general public all have some authority over the process.

3. Objective of the Acquisition System

Hearn (1996) states that the objective of the acquisition process is to obtain the supplies, equipment, and services that are needed to support Government programs, on time and at reasonable prices. The Department of Defense Directive (DoDD) 5000.1

(1996) echoes this objective, stating that the primary objective of the defense acquisition system is to "acquire quality products that satisfy the needs of the operational user with measurable improvements to mission accomplishment, in a timely manner, at a fair and reasonable price" (p. 3).

4. Acquisition System Governing Regulations

The acquisition process has many governing rules and regulations, totaling thousands of pages, which are updated and modified continually. To maintain compliance with this vast body of literature, acquisition professionals strive to stay abreast of current trends affecting the acquisition process. A variety of acquisition professionals from a host of functional disciplines (e.g., Test and Evaluation, Engineering, Logistics, Budget and Financial Management, Configuration Management, and Contracting) assist the Program Manager to interpret and understand these regulations.

The Federal Acquisition Regulation (FAR), issued under the Office of Federal Acquisition Policy Act, is the primary regulation for use by all Federal executive agencies in their acquisition of supplies and services with appropriated funds. For this reason, the FAR is the key document which guides the actions of Procuring Contracting Officers. (Hearn, 1996) This document fosters coordination, simplicity, and uniformity in the Federal acquisition process. (Hearn, 1996) The Defense Federal Acquisition Regulation Supplement (DFARS) supplements the FAR specifically for the DoD. The Navy Acquisition Procedures Supplement (NAPS) implements and supplements the FAR and the DFARS and establishes for the Department of the Navy uniform policies and procedures for the acquisition of supplies and services.

The DoDD 5000 series documents are the principal documents which guide the activities of the Program Manager. These documents describe a disciplined management approach for acquiring systems and material to satisfy valid military needs. Specifically, the DoDD 5000 series documents are designed to ensure that acquisition programs follow a logical progression through the acquisition phases, reduce program risk, ensure affordability, and provide adequate information for decision-making. In addition to these governing regulations, there are additional DoD Directives and Instructions, Military Specifications, Standards and Handbooks, SECNAV Instructions, and agency instructions which also govern the Navy acquisition process. (NAVAIR, 1995) These sources provide additional guidance concerning acquisition activities, such as designations and delegations of authority, assignments of responsibilities, work-flow procedures and internal reporting requirements.

5. Summary

This section has introduced the acquisition process and the environment in which DoD acquisition professionals must conduct their activities. The dollars spent in this process provide justification that successful acquisition programs should be important to not only the Defense Department, but also to every American taxpayer. The fact that numerous problems have been encountered in the past in acquiring the needs of the Defense Department highlights how difficult it has been for acquisition professionals to achieve the objectives espoused by the DoDD 5000 series documents.

B. THE U. S. NAVY CONTRACTING FUNCTION

The legal authority for the Government of the United States to enter into contracts with private citizens and non-Government organizations is derived from a simple

statement in the Preamble to the Constitution; the Federal Government shall "provide for the common defense, promote the general Welfare, and secure the Blessings of Liberty" (Hearn, 1996, p. 3). Contracting Officers, acting within the scope of their properly delegated authority, are the only people authorized to commit the Government to a contractual obligation. (FAR, 1996) For Navy Contracting Officers, this authority is delegated from the President of the United States through the Secretary of Defense and the Secretary of the Navy to a Head of a Contracting Activity at the appropriate working level. Properly appointed Navy Contracting Officers enter into contracts with commercial firms to acquire valid needs for the U. S. Navy. (Przemieniecki, 1993)

The contracting office handles all of the many contractual issues that develop in the relationship between the program office and the contractor. (Przemieniecki, 1993) It is responsible for negotiating, awarding, and administering contracts and contract modifications, negotiating and definitizing contract changes, and providing other related services and information to the program office on issues that relate to the myriad of regulations that govern the acquisition process. (Przemieniecki, 1993)

1. What is a Contract?

The FAR (1996) defines a contract as:

> ...a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that, except as otherwise authorized, are in writing. In addition to bilateral instruments, contracts include (but are not limited to) awards and notices of awards; job orders or task letters issued under basic ordering agreements; letter contracts; orders, such as purchase orders, under which the contract becomes effective by written acceptance or performance; and bilateral contract modifications (2.101).

The terms of a contract define all of the contractual requirements, conditions, and obligations of both parties to the contract, and can have a great impact on the cost of doing business with the Government. (Hearn, 1996)

2. Guiding Principles of the Contracting Function

The FAR (1996) lists the following guiding principles for the contracting function:

a. Satisfy the customer in terms of cost, quality, and timeliness of the delivered product or service.

b. Minimize administrative operating costs.

c. Conduct business with integrity, fairness, and openness, and

d. Fulfill public policy objectives (1.102).

Additional principles of the contracting function are: to ensure that all interested contractors are given an opportunity to bid for work and to have their bid comprehensively, impartially, and equitably reviewed for consideration and; to ensure that the source selected will meet the Government's needs at the best value. (Przemieniecki, 1993) Since Contracting Officers are charged with being wise and prudent spenders of public funds, it is essential that only qualified, capable firms be awarded contracts, and that the requirements specified in the Government contract are limited to only what is necessary. (Hearn, 1996)

3. Authority of the Procuring Contracting Officer

The authority and responsibility to contract for authorized supplies and services are vested in the head of each Governmental agency. This individual, in turn, delegates acquisition authority to Procuring Contracting Officers (PCOs) through issuance of a warrant. A warrant is a document which "establishes their [Contracting Officers] legal

capacity to act for the Government and specifies any bounds on it" (Przemieniecki, 1993, p. 168). Contracts may be entered into and signed on behalf of the Government only by warranted Contracting Officers. (FAR, 1996)

The FAR (1996) dictates that Contracting Officers must have "the authority to the maximum extent practicable and consistent with law, to determine the application of rules, regulations, and policies, on a specific contract" (1.102-4(a)). Specifically, Procuring Contracting Officers have authority to,

> ...enter into, administer or terminate contracts and make related determinations and findings. Contracting Officers may bind the Government only to the extent of the authority delegated to them. They are responsible for ensuring performance of all necessary actions for effective contracting, ensuring compliance with the terms of the contract, and safeguarding the interests of the United States in its contractual relationships (FAR, 1996, 1.602-2).

4. Duties and Responsibilities of the Procuring Contracting Officer

Contracting Officers are responsible for planning, preparing, obtaining, and documenting contracts and for managing or administering contractor performance. (Hearn, 1996) Prior to contract award, the primary responsibilities of the Procuring Contracting Officer are to perform all actions necessary for effective contracting to support the needs of the customer program office. (FAR, 1996) In carrying out these responsibilities, PCOs ensure all requirements of law, executive orders, regulations, and all other applicable procedures have been satisfied to safeguard the interests of the United States. (FAR, 1996) The FAR specifically requires the following pre-contract award actions: 1) ensure sufficient funds are available for obligation; 2) ensure contractors receive impartial, fair and equitable treatment; 3) request and consider the advice of

specialists in audit, law, engineering, transportation, and other fields as appropriate; and 4) document that the proposed contract is in the best interest of the Government.

The PCO's efforts concerning a contract are not completed after it has been awarded. After contract award, the PCO will normally continue to perform such duties as: monitoring contractor performance, including compliance with contract provisions, paying for progress or deliveries, and negotiating modifications and issuing unilateral changes to the contract, as necessary. (Hearn, 1996) In accomplishing their duties, the FAR (1996) directs that PCOs be given wide latitude to exercise business judgment.

To accomplish their duties and responsibilities, Procuring Contracting Officers must be able to: review and prepare contract documentation; capably manage the intervening steps of the acquisition process and; delicately balance the competing goals of fast action and satisfactory results. Unnecessarily rushing the acquisition process may be very costly downstream, and can ultimately result in a bad deal for the Government. (Cleland, Gallagher, & Whitehead, 1993)

5. Summary

This section explains the genesis of the Government's legal authority to enter into contracts with the private sector, and clarifies how the contract document defines the responsibilities of each party to the contract. The role of the contracting office, as well as the duties and responsibilities of the Procuring Contracting Officer in the acquisition process have also been highlighted. Since PCOs, through issuance of a warrant, are the only individuals who have the legal authority to contractually bind the Government, they obviously play a central role in the DoD acquisition process.

C. THE U. S. NAVY PROGRAM MANAGEMENT FUNCTION

A program office is an organization responsible for facilitating the design, development, production, fielding, and support of fleet requirements. To be successful in acquiring these fleet requirements, the program office must perform its designated functions both efficiently and effectively. The Program Manager (PM) acts as the leader of the program office, having full authority, responsibility and accountability for his program. He is singularly responsible for all aspects of the acquisition program, including development, delivery schedules, and performance. (Cleland, Gallagher, & Whitehead, 1993; Przemieniecki, 1993) During the acquisition process, the PM relies on the knowledge and experience of experts from various functional disciplines, such as Legal, Logistics, Engineering, Budget and Financial Management, Cost Estimating, and Contracting. Each of these program team members concentrates on the success of the entire acquisition program while retaining the responsibility of adequately representing their respective functional discipline area. The degree to which these personnel are fully dedicated to one particular program office will depend on the importance and size of the program, the stage in the life cycle of the program, as well as the degree to which the program office receives matrix support. (Cleland, Gallagher, & Whitehead, 1993)

1. Authority of the Program Manager

The Program Manager derives his authority from a charter: a written document which outlines the program's requirements, and is approved and signed by the PM's chain-of-command. (Cleland, Gallagher, & Whitehead, 1993) The PM leads the management team, which includes "contracting officials, technical or project management personnel,

financial managers, logisticians, and various auditors and reviewers" (Cleland, Gallagher, & Whitehead, 1993, p. 5.1).

2. Duties and Responsibilities of the Program Manager

The burden of responsibility placed on Program Managers is best summed up in the following statement contained within a GAO (1992) report,

> The design, development, and production of major weapon systems are extremely complex technical processes that must operate within equally complex budget and political processes. If not well conceived, planned, managed, funded, and supported, problems such as cost growth, schedule delays, and performance shortfalls can easily befall a program. Even properly run programs can experience problems that arise from unknowns, such as technical obstacles and changes in the threat. In short, it takes a myriad of things to go right for a program to be successful, but only a few things to go wrong to cause major problems (p. 15).

This statement suggests that Program Managers must keep their eyes on the "Big Picture" while conveying to their staff the policies under which they are working, end goals, timelines, and a general idea of how he would like to proceed. In addition, Program Managers must set long- and short-term objectives, clearly delineate lines of authority and responsibility for staff members, and keep the program office staff abreast of the external political environment. (Mayoral, 1996) The PM's vision and skill in performing these activities will "set the pace" for the entire program office. (Mayoral, 1996)

When a program is first begun, the Program Manager will establish the program office cadre, and begin preparing the acquisition strategy, program management plans, and the Acquisition Program Baseline (APB). (Przemieniecki, 1993) The APB identifies the program's goals (cost, schedule, and performance) which constitute the Program Manager's responsibilities for the program. (Przemieniecki, 1993) The DoDD 5000 series documents (1996) direct PMs to apply the Integrated Product and Process Development

concept throughout the acquisition process to the maximum extent practicable, and to continually assess program risk, non-traditional acquisition methods, program objectives and thresholds, performance specifications, and competition. PMs also have many coordination tasks to perform, from resolving personnel problems to redirecting acquisition strategies. (Mayoral, 1996) In addition, PMs, no matter what the significance or size of the program they are managing, are responsible for the following:

a. Managing a specific acquisition program, reporting to and receiving direction from their respective chain-of-command.

b. Formulating program plans for development, production, fleet introduction, and life cycle support.

c. Managing their programs in a manner that is consistent with, and supportive of, the policies contained in the DoDD 5000 series and Navy implementing instructions.

d. Formulating and defending the budget for the total program and committing to a program baseline.

e. Identifying shortfalls in personnel, functional management support, funding, and timeliness of funding that adversely affect achievement of Milestone Decision Authority (MDA) decisions and approved programs.

f. Allocating resources to execute the program.

g. Establishing program priorities to guide the efforts of all program team personnel.

h. Promptly reporting all imminent and actual breaches of MDA decisions and approved programs.

i. Selecting alternative actions that best balance cost, schedule, and capability with sound logistics and engineering practices.

j. Preparing and submitting periodic Defense Acquisition Executive Summary (DAES) performance reports where applicable (Cleland, Gallagher, & Whitehead, 1993, p. 13.18; NAVAIR, 1994, p. 7).

3. Summary

It would be difficult to overstate the importance of the Program Manager's role in achieving an effective, efficient acquisition program. "Successful Program Managers set the pace, delegate, support, advocate, listen, direct, encourage, coordinate, arbitrate, and mitigate issues at every step of the acquisition process yellow brick road" (Mayoral, 1996, p. 51). Mr. Norman Augustine, Chairman of Lockheed Martin Corporation, has labeled the job of Program Manager "among the most important and most difficult assignments in America's peacetime military", but he also points out that the job "is potentially a career buster" (as cited in Cleland, Gallagher, & Whitehead, 1993, p. 1.7).

D. THE PM- PCO RELATIONSHIP

> One of the most complex relationships within the Department of Defense system acquisition environment is that which exists between the PM and the PCO...These two people, individually and collectively, have the greatest responsibility in acquiring the goods and services necessary to defend our country from aggression (Menker, 1992, p. 1).

For less complex and lower-dollar-value acquisitions, the Contracting Officer buys what is needed with little interaction with the personnel who generated the requirement. (Cleland, Gallagher, & Whitehead 1993) However, as requirements grow in complexity, more technical involvement is required, necessitating the use of a program management team concept. To support the team concept, Program Managers and Contracting Officers must learn to coordinate their activities as well as the activities of their respective staffs. (Cleland, Gallagher, & Whitehead, 1993) In conducting their responsibilities, Garrett (1995) believes these two individuals "must work together to successfully purchase or provide quality products and services on time, on budget, and to the complete satisfaction of their customers" (p. 12). Menker (1992) agrees, stating, "Where these two critical

team members work together in an open, intimate, atmosphere of honesty and integrity, even with the occasional tension, the resulting program may not always be harmonious, but the probability of success is greater" (p. 9).

While the two must coordinate their activities, their responsibilities and agendas are not necessarily complimentary, creating a source of tension and conflict. Garrett (1995) remarks that stress occurs between the two from a high degree of job overlap, which can lead one to ask "Who's in charge?." Kelman (1990) notes that "the Contracting Officer's role tends to set him in institutional conflict with the program and technical people, who have less concern for the regulations, particularly the various competition requirements" (p. 25). Menker (1992) states that the execution of PM and PCO responsibilities creates an inherent friction, "because two people are responsible for planning, organizing, and controlling and both are accountable for their actions" (p. 5). While PMs have overall responsibility for a program, they lack the authority to sign, modify, or cancel contracts. On the other hand, Contracting Officers are not in charge of the day-to-day operations and planning of the program office, but as the only people authorized to enter into legally binding contractual arrangements, they "may shoulder the responsibility for having critical resources available as needed under very tight, often conflicting or unrealistic time frames" (Garrett, 1995, p. 14). In examining the PM - PCO relationship, Menker (1992) has remarked,

> Granting the Program Manager the complete power or authority for a program fails to recognize the responsibility of the second most important individual necessary for contracting for that program. The ultimate success of a program may depend on how well the Contracting Officer was able to read the minds of the Program Manager and technical personnel and write a contract that expresses the needs of both parties, is fair and reasonable, and accurately communicates the needs and desires of the Government.

> The planning, directing, and organizing performed by the Contracting Officer in executing the contracting function for that program is equally as critical as that of the Program Manager in directing the program (p. 7).

Another basic difference between the two roles are that Program Managers are rewarded for getting systems on schedule, within cost, and meeting technical requirements, while Contracting Officers are more typically rewarded based on an evaluation of contract quality (low noted errors during reviews) or numbers and dollars of contractual actions. (Cleland, Gallagher, & Whitehead, 1993) For major acquisition programs, however, the PCO's overall performance rating can also be greatly affected by the PM's assessment of the PCO's abilities and results achieved.

E. CHAPTER SUMMARY

This chapter illustrates how the acquisition environment has dramatically changed over the past several years, and highlights a few of the many stakeholders in the DoD acquisition process. The roles of the contracting function and the program management function in the DoD acquisition process were discussed, highlighting the relationship between the PCO and the PM. Because an effective PM - PCO relationship supports program success, and because the PM's assessment of the PCO's abilities may have a direct bearing on the PCO's overall performance rating, it is imperative that Contracting Officers reexamine their efforts in supporting this relationship.

This chapter highlights the complexity of the PM - PCO relationship. This relationship is influenced by ever-changing variables (budget, schedule, etc.) and dynamics (legal, personal, social). The variable or dynamic that most influences the relationship will depend upon the requirements of the situation.

III. LITERATURE REVIEW

To gain an understanding of current practical and theoretical knowledge concerning customer satisfaction, several bodies of literature have been examined. First, social psychology literature provides a framework for understanding social interactions, which are a fundamental element of customer satisfaction. Next, customer satisfaction and customer service literature's explain how customer satisfaction is attained, its importance to organizational success, and measurement procedures. Finally, management literature provides guidance concerning practical application of customer satisfaction data.

A. SOCIAL PSYCHOLOGY

The relationship between the Procuring Contracting Officer and the Program Manager is fundamentally a social interaction between two individuals. For favorable outcomes to result from this relationship, both parties must rely on the skills and abilities of the other. This implies an interdependence between the PCO and the PM. In addition, both of these parties possess a considerable amount of power - the PM through his charter, and the PCO through his warrant. To better understand the PM - PCO relationship and its effect on customer satisfaction, a fundamental understanding of social interactions and the impact of interdependency, or "power" on these social interactions is necessary. Social psychology literature provides insight into these aspects of the PM - PCO relationship.

1. Interaction and Behavior

As described by Thibaut and Kelley, "the essence of any interpersonal relationship is *interaction*" (1986, p. 10). Interaction is described as emitting behavior in each other's presence, creating products for each other, or communicating with each other. In every

case of interaction, there is the possibility that the actions of each person may affect the other. Based on his studies of workplace interactions, Tjosvold (1986) notes that the standards used to reward and evaluate employees affect their interactions. He concludes that if employees are rewarded for group success, then assistance, coordination, and information exchange are fostered.

Thibaut and Kelley (1986) describe the results of interactions between individuals in terms of the rewards received and the costs incurred in the course of their interaction. Costs are "any factors that operate to inhibit or deter the performance of a sequence or behavior," while rewards are the "pleasures, satisfactions, and gratifications the person enjoys" (p. 12). Mills and Clark (1982) use the term "benefits" rather than "rewards." They point out that many of the benefits people give to one another in a relationship do not involve money, but are "something one member of a relationship chooses to give to the other that is of use or value to the person receiving it" (p. 122). Costs arise in a relationship if participants "fail to provide help to others (particularly if they are able but refuse to do so) or if they raise other's costs by "inducing anxiety or discomfort" (Thibaut & Kelley, 1986, p. 49). Each person's rewards and costs depend in part upon his own behaviors and in part upon the other's behaviors.

2. Affect of Control on Behavior

Thibaut and Kelley (1986) also provide insight into how control over outcomes affects individual behavior. The authors note that an individual will naturally adjust his actions in an effort to achieve better outcomes and avoid poorer ones. However, an individual only has control over some of the variability in outcomes, while some of the variability is governed "by the exercise of external control over him by other persons or

agencies" (1986, p. 85). This has implications for the PM - PCO relationship. Since both parties are dependent upon the other to perform their duties, the party possessing the greater ability to control the outcomes of the other party will have a greater ability to influence the other party's behavior. Additionally, the control exercised over the PCO either through regulation or through the direction of senior leadership in the contracting chain-of-command may stifle the PCO's creativity in exploring how best to satisfy the PM.

3. Affect of Power on Relationships

"Generally we can say that the power of one person over another is based on the first person's ability to affect the quality of the second person's outcomes" (Thibaut & Kelley, 1986, p. 101) In examining how power affects the outcomes of an interaction, Thibaut and Kelley (1986) note that each person can exercise power over the other in certain ways. This exercise of power is limited by two factors: the extent that exercising it will affect the possessor's outcomes, and the possession of counterpower by other persons in the relationship. These factors suggest that each person has some power which places limits on the extent to which each may, with impunity, exercise their own power over the other party. This has a moderating influence on relationships. The authors conclude that the greater the power the members of a relationship have over one another, the less chance there will be for conflict. (Thibaut & Kelley, 1986) A recognition of the power that both the PCO and the PM possess should provide incentive for both to seek to avoid conflict in their relationship.

4. Affect of Alternatives on Satisfaction

Satisfaction with the relationship is based to some extent on a comparison of the alternatives that participants have. (Oliver, 1980; Thibaut & Kelley, 1986) Each person

will enter and remain in only the best available relationship. Thibaut and Kelley (1986) also note that "the pattern of interdependency which characterizes a relationship also affects the kinds of process agreements the pair must achieve if their relationship is to be maximally satisfactory" (p. 124). This implies that a type of "negotiation" takes place between parties in a relationship to establish the process agreements the two will employ.

Thibaut and Kelley (1986) maintain that an individual's satisfaction with a relationship is, in large part, determined through a comparison with available alternatives. This comparison standard, named by these authors as the C*omparison level for alternatives,* is used by the individual to determine the lowest level of outcomes the individual will accept, or he will terminate the relationship. LaTour and Peat (1979) suggest an individual's standard of comparison may be drawn from past personal experience, the experience of others, or from some expectation created by the supplier of the good or service. To the degree the outcomes an individual obtains in a given relationship surpass this standard, he is satisfied with the relationship. Likewise, to the degree obtained outcomes fall short, he is dissatisfied with the relationship. Therefore, this theory recognizes that satisfaction is not an absolute phenomenon but rather a relative one. (LaTour & Peat, 1979)

5. Summary

The study of social psychology literature provides many insights into the PM - PCO relationship. The review of relationship "benefits" and "costs" is applicable because, although the PM is dependent on the PCO for his contracting needs, if the PM perceives that potential "benefits" are being withheld by the PCO, his satisfaction with the relationship will diminish. This situation has been exacerbated in the past because PMs

have not been able to choose among "alternative" sources for their contracting needs. Instead, PMs have been directed to utilize particular contracting offices.

LaTour and Peat's (1979) theory argues that in determining satisfaction with the services of a contracting office, PMs will draw upon their previous experience with the current or previously utilized contracting organizations, and to a lesser extent, the experiences of other PMs in working with the existing contracting organization. This suggests that if a PCO performs above the PM's minimum *comparison level for alternatives* on all measures deemed important to the PM, the PM will probably be satisfied.

B. CUSTOMER SATISFACTION

Keeping customers satisfied has been the very basis of business success for quite some time and is, therefore, nothing new. As early as 1960, a *Harvard Business Review* article stated, "The view that an industry is a customer-satisfying process, not a goods producing process, is vital for all business men to understand. An industry begins with the customer and his needs, not with a patent, a raw material, or a selling skill" (Nagel & Cilliers, 1990, p. 1). Although its importance has been recognized since the 1960s, researchers and organizational managers still struggle to understand customer satisfaction.

In the early 1970s, consumer satisfaction began to emerge as a legitimate field of inquiry. Pfaff (as cited in Churchill & Suprenant, 1982) reports that the U. S. Department of Agriculture's Index of Consumer Satisfaction was the first study to report direct information on consumer satisfaction to policy makers. Other early research examined disconfirmed expectancies and their influence on product performance ratings. These

studies formed the foundation for much of the later theory testing and experimental research. (Churchill & Suprenant, 1982)

Since the early 1970s the volume of consumer satisfaction research has been impressive. (Churchill & Suprenant, 1982) Numerous theoretical structures have been proposed to examine the formation of customer satisfaction and develop meaningful measures of the construct. The vast majority of these studies have used some variant of the disconfirmation paradigm. (Churchill & Suprenant, 1982; Patterson, Johnson, & Spreng, 1997) This theory is discussed in detail later in this section.

Today, the drive to understand customer satisfaction continues. This customer satisfaction focus "comes not out of altruism or idealism, but out of hard economics" (McKerney, 1996, p. 6). Satisfied customers are recognized as being very valuable to an enterprise, providing an indispensable means of creating a sustainable advantage in the competitive environment of the 1990s. (Patterson, Johnson, & Spreng, 1997) Therefore, organizational decision-makers continue to search for practical assistance in planning a strategy for providing customer satisfaction. (Nagel & Cilliers, 1990)

1. Importance of Customer Satisfaction

Griffin (1995) believes that a lack of attention to customer service and customer satisfaction can prove fatal for businesses. "Most businesses don't fail because of a huge mistake or gigantic blunder, but because they slowly lose touch with their customers. In return, these customers become indifferent and become open to the possibility of giving their business to new suppliers" (1995, p. 186). Indeed, customer satisfaction is the crucial link in establishing longer-term client relationships and thus the strategic well-being of the organization. (Patterson, Johnson, & Spreng, 1997; Peterson & Wilson, 1992)

Firms that actually achieve high levels of customer satisfaction also enjoy superior economic returns. (Barsky, 1995)

Kaplan and Norton (1996) stress that success for commercial companies is long term profitability, generated by maximizing customer satisfaction and loyalty. Recent research has indicated that just scoring adequately on customer satisfaction is not sufficient for achieving high degrees of loyalty, retention, and profitability. The authors conclude that only when customers rate their buying experience as completely or extremely satisfied can a company count on their repeat business.

Nagel and Cilliers (1990) point out that customer satisfaction is the new standard by which customers are measuring business performance. The authors state that with growing emphasis being placed on customer satisfaction, it is possible that a time will come when business performance will be measured not only in terms of return on investment, but also in terms of the level of customer satisfaction. In today's competitive marketplace, customer satisfaction "is not *a* competitive edge, it is *the* competitive edge" (Nagel & Cilliers, 1990, p. 1).

2. Customer Satisfaction Defined

"A fundamental barrier to servicing customer needs is the misunderstanding of the term customer satisfaction" (Barsky, 1995, p. 7). Although individual definitions abound, customer satisfaction is generally thought to be a post-purchase psychological state, because the buyer must experience product performance to make a comparison with the set of expectations they hold. These expectations are modified over time by experience (Miller, 1977), by an awareness of what others receive in the same situation, and by expectations created by the manufacturer (LaTour & Peat, 1979). Churchill and

Suprenant (1982) define customer satisfaction as an outcome of purchase and use, resulting from a buyer's comparison of the rewards and costs of the purchase in relation to the anticipated consequences. A customer will therefore experience satisfaction if the rewards of the purchase and its use are in keeping with the anticipated consequences. (Churchill & Suprenant, 1982) Hunt (1977) also believes that satisfaction involves a comparison process, but of expectations versus reality rather than rewards versus costs. He defines satisfaction as "stepping away" from an experience and evaluating it. Barsky (1995) agrees stating, "One could have a pleasurable experience that caused dissatisfaction because even though pleasurable, it wasn't as pleasurable as it was expected to be" (p. 2). Therefore, in discussing satisfaction, the customer satisfaction literature and social psychology literature share the belief that a comparison process takes place as an integral step in the satisfaction construct.

3. Disconfirmation of Expectations Paradigm

The dominant conceptual model in the satisfaction literature is the disconfirmation of expectations paradigm. (Churchill & Suprenant, 1982; Patterson, Johnson, & Spreng, 1997) This theory asserts that customer satisfaction "is related to the degree and direction of disconfirmation, which is defined as the difference between an individual's initial expectations (or some other comparison standard) of the product or service and the actual performance of the product or service. (Oliver, 1980; Churchill & Suprenant, 1982; Spreng, MacKenzie, & Olshavsky, 1996; Patterson, Johnson, & Spreng, 1997). If initial expectations are confirmed, then the individual's expectations have been met by actual performance; resulting in satisfaction with the product or service. If initial expectations are disconfirmed, then expectations have not been met. This can either increase or

decrease the individual's level of satisfaction, depending on the direction of disconfirmation. If the disconfirmation is "negative", then actual performance has fallen short of the individual's initial expectations, resulting in decreased satisfaction. However, if the direction of disconfirmation is "positive", then actual performance has exceeded initial expectations, which will likely result in the individual being entirely satisfied with the product or service. The full disconfirmation paradigm has been argued to encompass four constructs including; expectations, performance, disconfirmation, and satisfaction. Each of these constructs is elaborated below.

1. Expectations. Expectations reflect *anticipated performance*. The satisfaction literature suggests customers may use different "types" of expectations when forming opinions about a product's anticipated performance. Miller (as cited in Hunt, 1977) asserts that customer satisfaction results from the interaction of levels of expectations about anticipated performance and evaluations of perceived performance. Miller has identified four types of expectations: the Ideal, the Expected, the Minimum Tolerable, and the Deserved. The Ideal is the "wished for" performance level. The Expected is based on past average performance and reflects what the respondent feels performance probably "will be." The Minimum Tolerable is the least acceptable level. The Deserved reflects what the individual feels performance "ought to be" in light of his investments in the relationship. It is reasonable to assume that the specific type of expectation held by a customer will affect the supplier's ability to satisfy that customer.

Given the general acceptance of the role of expectations in determining satisfaction, it is surprising that there is not more agreement in the literature about the conceptual definition of the expectations construct. Some of the generally accepted

definitions are: predictions of future performance (Oliver, 1980); beliefs about a product's attributes or performance at some time in the future (Spreng, MacKenzie, & Olshavsky, 1996); or estimates of the likelihood of an event plus an evaluation of the goodness or badness of the event. (Churchill & Suprenant, 1982; Oliver, 1980)

Expectations are influenced by: (1) the product itself, including one's prior experience, brand connotations, and symbolic elements, (2) the context including the content of communications from salespeople and social referents, and (3) individual characteristics including persuasibility and perceptual distortion. (Oliver, 1980) Customers compare a new product or service experience with some standard (expectation) they have developed. "These standards are not specific points in the customers head, instead they have a range of outcomes that customers anticipate on the basis of all the information they have accumulated" (Barsky, 1995, p. 24). Customers use this frame of reference when they assess their entire product or service experience.

2. Performance. The primary importance of performance in the satisfaction literature has been as a standard of comparison by which to assess disconfirmation. Churchill and Suprenant (1982) note that although it is reasonable to assume that improving the level of performance should increase satisfaction, the effect of different performance levels on expectations and disconfirmation has not been demonstrated.

3. Disconfirmation. In the satisfaction research literature, disconfirmation occupies a central position as a crucial intervening variable. Disconfirmation arises from *discrepancies* between prior expectations and actual performance. The magnitude and direction of the disconfirmation generates satisfaction or dissatisfaction.

4. Satisfaction. Churchill and Suprenant state that satisfaction "is similar to attitude in that it can be assessed as the sum of the satisfactions with the various attributes of the product or service" (1982, p. 493). LaTour and Peat (1979) assert that satisfaction is a post-decision construct.

Unfortunately, empirical studies have produced conflicting findings regarding the respective roles of expectations, disconfirmation, and performance in satisfaction evaluations. (Patterson, Johnson, & Spreng, 1997) This has prompted some scholars to suggest that different satisfaction processes operate under different conditions, such as across different product categories, for high versus low-involvement products, or for products versus services (Anderson, 1994; Patterson, Johnson, & Spreng, 1997) For example, Churchill and Suprenant (1982) found that both disconfirmation and performance were significant antecedents of satisfaction for a low-involvement product, but only performance was significant for a high-involvement product. Other studies have not agreed with these findings. (Patterson, Johnson, & Spreng, 1997)

Spreng, Mackenzie, and Olshavsky (1996) have noted that satisfaction research has focused primarily on the disconfirmation of expectations, rather than of desires, as the key determinant of satisfaction. These authors contend that the extent to which a product or service fulfills a person's desires also plays an important role in shaping feelings of satisfaction. The failure of researchers to consider desires in determining satisfaction "has led to logical inconsistencies, such as predicting that a customer who expects and receives poor performance will be satisfied" (Spreng, MacKenzie, & Olshavsky, 1996, p. 15).

4. Affect of Expectations on Satisfaction

"Despite its central place in the disconfirmation of expectations model, the effect of expectations is not at all clear" (Spreng, MacKenzie, & Olshavsky, 1996, p. 19). One of the issues noted deals with the relationship between expectations and disconfirmation. Oliver (1980) claims that the two are unrelated, whereas Churchill and Suprenant (1982) suggest that there is a negative relationship - high expectations are more likely to lead to actual performance falling below initial expectations and low expectations are more likely to lead to actual performance above initial expectations. This relationship has led Davidow and Uttal (as cited in Spreng, MacKenzie, & Olshavsky, 1996) to argue that firms should strive to lower customer expectations to produce positive disconfirmation and thus higher satisfaction. In contrast, other researchers have argued that because perceived performance has a positive influence on satisfaction, the effect of expectations on satisfaction through perceived performance is positive. Acknowledging this positive effect, Boulding (as cited in Spreng, MacKenzie, & Olshavsky, 1996) recommends that organizations should raise customer expectations to produce higher satisfaction.

Additionally, Parasuraman, Zeithaml, and Berry (1985) have commented that "segmenting customers based on their service quality expectations is worth exploring" (p. 49). As justification, these researchers refer to a previous research effort which revealed that customers apply similar criteria for judging quality, but they apply different relative importance weightings to these criteria, and have different expectations of performance.

5. Attaining Customer Satisfaction

Methods for attaining customer satisfaction appear to be as varied and numerous as there are definitions for the term customer satisfaction. According to Barsky (1995),

customer satisfaction is created by exceeding expectations, delivering quality, and targeting customer preferences. Hargett (1994) stresses that in order to target customer preferences, an organization must know its customers. Customer requirements and expectations can be identified by conducting focus groups, in-depth groups, or new products testing.

Other researchers have attempted to identify criteria which drive customer satisfaction. Among these criteria, the price of the product or service has been noted as playing an important role in attaining customer satisfaction. (Fornell, 1992; Anderson, Fornell, & Lehmann, 1994) Others argue that the perceived value of the product or service, that is, its quality relative to price, which directly bears on satisfaction. (Anderson, Fornell, & Lehman, 1994) Churchill and Suprenant (1982) assert that it is "unrealistic to ignore the impact of performance on satisfaction, as the U. S. auto industry has learned" (p. 503), while Connellan and Zemke (1993) contend that customer satisfaction is built on employee satisfaction. A company cannot satisfy its customers if its employees are dissatisfied, because employees tend to treat customers the way they perceive they are treated within the organization. (Connellan & Zemke, 1993)

6. Inhibitors of Customer Satisfaction

Researchers have identified several internal barriers that can seriously inhibit an organization's ability to generate customer satisfaction. These barriers are:

1. Product. The delivered product or service does not meet or exceed customer expectations. (Barsky, 1995)

2. Personnel. Personality and individual employee characteristics may restrict or prevent customer satisfaction. In other words, individuals perceive reality through

personal "filters"; these filters may prevent employees from appreciating their customer's perspective of service quality. (Sheridan, 1994) A corresponding problem is that customers may not be providing accurate feedback to their supplier, "especially if the customer is leery of upsetting a key supplier or straining its relationship with that supplier" (Sheridan, 1994, p. 64).

3. Bureaucratic. Policies, procedures, and rules may impede customer satisfaction. Sheridan (1994) notes that in many companies, manager's bonuses now depend on customer satisfaction scores. As a result, the way the scores are tallied may be skewed or biased to assure that mangers receive their bonuses.

4. Technology. Production-based innovations or service technologies restrict the organization's ability to satisfy customer objectives. (Barsky, 1995) New technologies may not be flexible enough to allow employees to adequately respond to customer needs.

5. Managerial. Lack of desire or effort to support customer orientation. Even if managers do have the desire, they typically forego analysis of what customers expect because they assume they *know* what customers expect. (Marr, 1980; Parasuraman, Zeithaml, & Berry, 1985) Unfortunately, studies have shown that when managers are asked their opinion of what elements contribute to customer service, there are significant "differences between the ways that customers define service and rank the importance of different service activities and the ways that suppliers do" (Marr, 1980, p. 433).

6. Cost-related. Insufficient expenditures dedicated to customer objectives. (Barsky, 1995)

7. Measuring Customer Satisfaction

"Customer satisfaction surveys have now become one of the most active areas for market research firms, with current billings of nearly $200 million and annual growth of 25%" (Kaplan & Norton, 1996, p. 71). The three techniques most often employed to measure satisfaction are mail surveys, telephone interviews, and personal interviews. (Kaplan & Norton, 1996) These techniques vary widely in terms of cost to administer, response rates, and quality of the information gathered.

a. Preconditions

The satisfaction literature identifies three preconditions that should be addressed prior to attempting to measure customer satisfaction. These preconditions are: soliciting customer involvement in determining "what" should be measured; determining "when" to measure satisfaction; and understanding "how" to collect satisfaction data that will be useful to the organization.

1. What to measure. Rosenberg (1996) states that attempting to measure customer satisfaction without making customer input and involvement a part of the process is a fundamental mistake made by many organizations. "Without such a customer orientation, measuring satisfaction is pointless because it gives no clue as to why customers are satisfied or not and what might be done to improve things" (p. 59). To prevent this problem, Forsha (1992) recommends that determining what attributes are to be measured should be a joint effort between the customer and supplier. Comola (1988) believes that the ability to focus on the customer is the "value-added" utility that differentiates success from failure in the marketplace.

2. When to measure. Many experts recommend annual measurement of customer satisfaction. (Zabusky, 1995) However, Hunt (1977) stresses that fixed measurement systems may hinder the collection of more meaningful data for the organization. Andreason (as cited in Hunt, 1977) argues that there are two critical points in the post-purchase satisfaction process at which one can measure satisfaction, immediately after purchase or after a period of time has elapsed. The time period chosen should depend on the organization's goals. If the goal is to determine satisfaction related to some specific purchase or use, then the measurement should be taken as soon as possible after purchase to avoid data imperfections caused by dissonance reduction. However, if an organization wishes to assess its complaint handling systems, it should measure after a period of time has elapsed to allow this system to function.

3. How to measure. Nagel and Cilliers (1990) believe that customer satisfaction measurement should be used to form the basis of planning and formulating a strategy as well as appraising performance. When relying on measures for these purposes, it is critical that they be valid and reliable, and in such a format that it has practical meaning for those who have to interpret and act upon it.

b. Problems in Measuring Satisfaction

The satisfaction literature identifies a variety of problems that must be overcome in the measurement process. The problems highlighted in the literature are:

1. Customer satisfaction is not objective. "Perhaps because customer satisfaction is typically presented numerically (usually as survey results), people become seduced by numbers and assume that they represent an objective reality in the same way that production numbers or stock prices do" (Rosenberg, 1996, p. 57). Rosenberg

cautions that customer satisfaction is a psychological attitude, not a physical fact, and can only be observed indirectly, by asking people their opinions or observing what they do. For this reason, Peterson and Wilson (1992) recommend that customer satisfaction ratings not be viewed as absolute measurements but as relative measurements. They suggest that satisfaction measurements should be related to prior measurements of the same product (to evaluate change over time) or against competing products at the same time (to evaluate customer preferences between products).

2. Measuring complex services is difficult. Day and Barksdale (as cited in Patterson, Johnson, & Spreng, 1997, p. 6) note that "clients may have difficulty in confidently evaluating performance for intangible, complex services [because they] do not have the technical skills, expertise, or experience to evaluate the outcome".

3. Indirect influences. Customer satisfaction is also influenced by factors that are not directly related to the customer's experience with the product or service, such as reputation. (Rosenberg, 1996)

4. Skewed distributions. Distributions of satisfaction are usually skewed toward high satisfaction. (Hunt, 1977; Peterson & Wilson, 1992; Rosenberg, 1996) Peterson and Wilson (1992) state that the distribution shape could be due to a ceiling effect. There are not "a sufficient number of categories to permit survey participants to make fine discriminations, especially at the positive (highest) end" (p. 63). Rosenberg (1996) concludes that the skewness in the distribution of ratings causes the mean value to be misleading. It will be most heavily influenced by the few people giving extreme scores at the low end, so the median is probably a better measure of the total sample. Peterson

and Wilson (1992) declare that it may be more beneficial to concentrate on those customers who indicate dissatisfaction, rather than merely focusing on satisfied customers.

5. Cultural differences. Various social groups, have different learning processes and experiences. We should not expect, then, to find direct comparability across cultures. The more diverse the background and experience of the individuals, the more variation there may be in satisfaction ratings. Research studies have determined that mean ratings among various social groups can be similar but the distribution about the mean is different. (Hunt, 1977; Rosenberg, 1996) Rosenberg (1996) notes that there is even a high variability within the same people at different times.

6. Data collection method bias. Individuals who are more satisfied are more likely to respond to a satisfaction survey than are individuals who are less satisfied. (Peterson & Wilson, 1992) Additionally, different results might be obtained depending on how the data are collected (personal interview, telephone interview, or mail survey). There are indications that higher levels of satisfaction are obtained when personal or telephone interviews are used than when mail or self-administered interviews are used. (Peterson & Wilson, 1992) Additionally, a number of factors can inflate self-reported satisfaction ratings, such as: question formation, measurement timing, the respondent's mood, stress felt by the respondent, and the customer's reluctance to admit dissatisfaction because it may reflect badly on their behavior or judgment. (Peterson & Wilson, 1992)

7. Sample size. Most satisfaction surveys use small samples, and therefore, can only statistically detect large changes. The size of the sample required to detect statistically significant differences is often quite large, and consequently, costly to collect. Rosenberg (1996) cites as justification that a 10-point satisfaction rating scale, in

which the average rating is 7 and the standard deviation is 1, would require a sample size of more than 2,000 to detect a change from 7 to 7.1.

8. Inertia. Customer satisfaction, by nature, is difficult and slow to change. Generally, satisfaction with a company's products and services is built by repeated customer experiences. Unless the experiences are significantly below or above expectations, it takes a while for an attitude shift to take place. (Rosenberg, 1996)

9. Customer Variation. Most organizations not only have many customers, they have many different kinds of customers as well. Customers have specific needs and expectations and these may conflict across varying customer groups. It is important that organizations understand these distinctions so that the measurement data can be accurately interpreted and acted upon. (Rosenberg, 1996)

10. Unintended Consequences. Peterson and Wilson (1992) argue that attempts to measure customer satisfaction actually influence the survey results; paradoxically increasing satisfaction, regardless of the product or service being investigated. This is commonly referred to as the Hawthorne Effect. (Peterson & Wilson, 1992) Additionally, Coppola (1991) declares that "one danger in measuring a process is that it becomes the priority, and some ways of improving one parameter may deteriorate other critical parameters" (p. 10). By focusing on one aspect of a business, employees may adversely impact the overall business.

c. Measurement Instrument Development

The satisfaction literature includes several methodologies for developing a customer satisfaction measurement instrument. The most comprehensive of these is provided by Nagel and Cilliers (1990). The development steps recommended are:

1. Specify the domain of the construct. Develop a very accurate definition of what is included in the construct and what is excluded. Provisions should be made for the specification of the particular determinants of satisfaction that are appropriate for this construct. It is important to test the construct conceptualization by exposing it to experts of the specific application.

2. Generating an item pool. The emphasis during this stage should be to develop a set of items (attributes) which tap each of the dimensions of the construct at issue. Techniques used to generate items include literature searches, focus groups discussions and discussions with others involved in the customer satisfaction process. Forsha (1992) recommends that determining the specifications of attributes should be a joint effort between the customer and the supplier. Item generation is followed by item editing. Each statement is edited to ensure that its wording is as precise as possible.

3. Data collection stage 1. The items generated in step 2 are exposed to a select sample of customers, representative of the entire group of customers. The respondents will indicate the extent to which each item brings satisfaction.

4. Item purification stage 1. The purpose of this step is to identify those items which are most significant in referring to the construct at issue. This is necessary because if all items were included in a questionnaire, it would be too long.

5. Data collection stage 2. The new item pool is now exposed to a new sample of respondents. This sample group will again evaluate each item in terms of its importance as a reflection of satisfaction.

6. Item purification stage 2. The item pool is again analyzed to test the different items as in step 4. This will make the item pool more "pure" compared to the pool that was originally generated.

7. Grouping of dimensions. The internal structure of the set of variables are analyzed to determine if they possess certain underlying, observable common constructs or factors.

8. Developing norms. A raw score on a measuring instrument is not particularly informative about the position of a given object on the characteristic being measured, because the units in which the scale is expressed may be unfamiliar. It would be more informative to compare the position of an individual to the score achieved by

other people. As a final development of the instrument, norms should be developed to interpret the results. In terms of enterprise satisfaction it may also be possible to allocate different weights to different dimensions of satisfaction (Chap 11).

d. Determining What is "Important" to the Customer

Determining importance is at the heart of customer satisfaction measurement. (LaTour and Peat, 1979; Barsky, 1995) This determination is essential because each customer applies a unique set of dimensions (e.g., price, performance, timeliness, accuracy) in determining their personal satisfaction. (Comola, 1988) One customer's satisfaction may be most strongly based on the responsiveness of the supplier, while another customer's satisfaction may be driven primarily by the performance of the product or service. This unique set of dimensions is arranged by the customer, either consciously or subconsciously, according to the perceived importance of each dimension in attaining that customer's satisfaction. (Comola, 1988)

Additionally, LaTour and Peat (1979) note that customers define each of these dimensions of satisfaction differently (e.g., product "performance" does not mean the same thing to every customer). Each customer's definition of the dimension will reflect only those attributes which are considered relevant to that individual. Again, customers arrange these dimensional attributes based on their perceived importance within that dimension. Therefore, a customer's satisfaction determination is based on both a unique set of dimensions, and a unique set of attributes which describe each dimension.

According to LaTour and Peat (1979), a satisfaction measurement instrument should "sum the discrepancies of all relevant attributes from their appropriate comparison levels with each discrepancy weighted by the importance of the attribute with

which it is associated" (p. 435). Ratings of importance will reflect the relative value of the various dimensions and associated attributes to customers. Lower ratings of importance are likely to play less of a role in affecting overall satisfaction, while higher importance ratings are likely to play a more critical role in determining customer satisfaction.

e. "Attribute-Specific" Measures Versus "Global" Measures

"Attribute-specific" measures are defined as attempts to quantify each individual element that has an affect on customer satisfaction. (Churchill & Suprenant, 1982) However, the term "global" measure has two somewhat different definitions in the customer satisfaction literature. The first meaning of global is as a measure of overall group satisfaction, whereby individual levels of satisfaction are added together to provide a measure of large group or societal satisfaction. (Hunt, 1977) The second meaning of global is as an aggregate measure of individual satisfaction, whereby attribute-specific measures are summed to generate an individual's overall customer satisfaction score. (Hunt, 1977)

There appears to be varied opinions in the literature about which type of measures are most appropriate for use in a customer satisfaction instrument. Hunt (1977) believes that only aggregates at the individual level should be used. Hunt regards societal measures of satisfaction as inappropriate. He believes that individual satisfaction ratings cannot be added together in any meaningful way, because each individual applies a unique set of importance weightings to the attributes of satisfaction. However, Oliver (1980) appears to not approve of any aggregation, even at the individual level, asserting that, since "disconfirmation ultimately takes place at the individual attribute level, an attribute-specific measure may yield greater insight" (p. 467). Conversely, Spreng, MacKenzie, and

Olshavsky (1996) believe that individual-level aggregate global measures are more important because the overall experience has more affect on satisfaction than individual attributes.

f. The Ideal Measurement Program

Mentzer, Bienstock, and Kahn (1995) and Zabusky (1995) have identified characteristics that an ideal customer satisfaction measurement program should have. The researchers recommend that an ideal measurement program:

1. Be customer driven. Zabusky (1995) believes that many companies make the mistake of developing a list of customer satisfaction attributes without consulting customers to discover what they consider to be the key drivers of satisfaction. This results in an attribute list which reflects what the company thinks is important, not what the customer thinks is important. To avoid this problem, Zabusky (1995) advises that companies should consult with a variety of decision-makers to determine the list of attributes critical to customer satisfaction, while Mentzer, Bienstock, and Kahn (1995) specifically recommend that management, employees, consultants, and industry sources be tapped for their input. Additionally, Zabusky (1995) stresses that survey questions should be framed such that the customer's desired level of performance can be ascertained.

2. Contain both qualitative and quantitative measures. Qualitative measures allow an organization to probe deeply into issues important to customers; quantitative measurement allows an organization to rank the relative importance of the identified satisfaction drivers. (Zabusky, 1995; Mentzer, Bienstock, and Kahn, 1995) Use of both types of measures measures allows an organization to quantitatively assess its performance, ascertain a clearer understanding of customer satisfaction criteria, and

concentrate on actions that improve areas deemed most important to the customer. (Zabusky, 1995)

3. Ensure validity and reliability. The measurement instrument should reliably and accurately incorporate the identified dimensions and attributes of satisfaction. Additionally, the reliability and validity of the instrument should be reviewed regularly. (Mentzer, Bienstock, & Kahn, 1995; Zabusky, 1995)

4. Survey both customers and non-customers. It is useful to survey organizations that are served by competitors, and to ask all respondents to provide a rating relative to the competition. (Zabusky, 1995; Mentzer, Bienstock, & Kahn, 1995)

5. Use the dimensional information to develop an action plan. The action plan should address how to improve each critical dimension and specify how improvements will be communicated to customers. In addition, to ensure that the customers' goals match employees' goals, organizations should tie performance evaluations and employee compensation to accomplishment of the action plan. (Mentzer, Bienstock, & Kahn, 1995)

8. Summary

This literature review has provided information useful for developing a customer satisfaction measurement instrument. Its relevancy to this study is illustrated in several ways. First, it has: validated the importance of customer satisfaction in supporting organizational success; identified the factors which inhibit or contribute to customer satisfaction; and emphasized the benefits resulting from satisfaction measurement. Second, it has: exposed the many problems that must be overcome in developing a measurement instrument; discussed the efficacy of global versus attribute-specific

measures; and revealed the components of an ideal measurement program. Third, this literature review has described the dominant customer satisfaction model, which highlights the role of customer expectations in the satisfaction construct. Finally, a measurement instrument development procedure has been proposed, which stresses the necessity to assess the relative importance of each satisfaction attribute to the customer.

Therefore, for a customer satisfaction measurement tool to be useful, it must: include a process whereby the dimensions (and the attributes which describe each dimension) of satisfaction considered relevant to the customer are identified; the performance expectations for each attribute are ascertained; and the relative importance of each attribute to the customer is determined. This process will ensure the customer's desired level of performance is used as the baseline for measurement, and that the dimensions and attributes considered most important to the customer are given the most emphasis in determining a customer satisfaction score for the organization. Thus, determining customer expectations and measuring the importance of the dimensions of satisfaction must be an integral part of the customer satisfaction measurement process.

C. CUSTOMER SERVICE

One reason customer service has become such an important issue is that America's economy has become a service economy. "Services account for approximately three-fourths of the gross national product and nine out of ten new jobs the economy creates" (Zeithaml, Parasuraman, & Berry, 1990, p. 1). Unfortunately, its very importance can create problems. Organizations may prefer to assume their customers are satisfied rather than face the prospect that they provide inferior customer service. (Tjosvold, 1993) Instead of focusing on improving customer service, "many organizations are distracted by

repetitive crises that demand immediate action, are preoccupied with their own frictions and politics, and have developed defenses that frustrate a collective focus on improving service to customers" (Tjosvold, 1993, p. 1).

1. Importance of Customer Service

Zeithaml, Parasuraman, and Berry (1990) maintain that excellent customer service is important because it creates loyal customers; customers who consistently select the firm over its competitors and who recommend the firm to others. This should be of paramount importance to businesses because, as noted by Bender, "it is approximately six times more expensive (on average) to develop a new customer than it is to keep a current customer" (as cited in Ballou, 1992, p. 92). Additionally, Baritz and Zissman (as cited in Ballou, 1992) state that customer service performance can account for as much as five to six percent of a supplier's sales.

2. Customer Service Defined

The only important definition of customer service is that used by the customer; all other definitions are essentially irrelevant. (Zeithaml, Parasuraman, & Berry, 1990; Ballou, 1993) Therefore, the customer's definition of service should be used by an organization to gauge its performance. Horst S. Schulze, President of the Ritz-Carlton Hotel Corporation, believes that customer service means "constantly redesigning product and customer service so that customers get what they want. If those needs change, then you have a system in place that tells you quickly how to design new products and services" (as cited in Barsky, 1995, p. xi).

3. Causes of Poor Customer Service

Vice President Al Gore (1993) has criticized customer service delivered by Government agencies. The rationale given by Vice President Gore for this poor performance stems from the fact that Government agencies rarely get their funding directly from the people whom they serve. Without this direct link to their customers, "agencies often focus instead on powerful stakeholders, such as Congress or higher-level management. As these stakeholders raise issues, agencies increase their specialization, add organizations, and pile on more directives. In the process, the focus moves further and further from their real customers, the public" (Gore, 1993, p. 1).

Zeithaml, Parasuraman, and Berry (1990) have developed a "gap" model to explain causes of poor customer service. The "gaps" identified by these researchers are:

> 1. Customers' Expectations - Management Perceptions Gap. Management may not truly understand the customer's expectations. Executives may not always understand what features connote high quality to consumers in advance, what features a service must have in order to meet consumer needs, and what levels of performance on those features are needed to deliver high quality service.
>
> 2. Management's Perceptions - Service Quality Specifications Gap. Management may understand the customer's expectations but fail to translate them into the performance standards it establishes for its employees. Management's correct perceptions of customers' expectations is necessary, but not sufficient, for achieving superior quality service.
>
> 3. Service Quality Specifications - Service Delivery Gap. Even when specifications match customer expectations, actual delivery may fall short. This could be due to unwillingness and/or inability of personnel to meet standards, or from increases in service loads without commensurate increases in capacity to serve.
>
> 4. Service Quality - External Communications Gap. A gap may result from communications that unduly raise customer expectations (the organization may promise more than it can deliver) or that do not succeed in making customers aware of what is being done for their benefit.

> Promises made by a company raise expectations which serve as the standard against which customers assess service quality (p. 41).

4. Dimensions of Customer Service

Mentzer, Gomes, and Krapfel (1989) argue that there are two aspects of customer service. The first is the "Vendor Activity Domain" composed of a set of performance measures associated with a set of supplier activities (p. 55). These include criteria that a supplier could measure and track accurately and consistently but that, by themselves, are of little value to the customer. These performance measures are not focused on the perceptions of the customer but rather on the performance of the supplier. On the other hand, the "Customer Response Domain" represents the set of activities measuring service in terms of the customer's perceptions (p. 55). These include items such as availability, the focus of which is on customer needs and benefits rather than supplier performance. The authors conclude that availability, timeliness, quality of delivery, price, product quality, and promotion are major dimensions of customer service. Building on this conclusion, Bowen, Siehl, and Schneider (1989) argue that intangibles such as empathy with the customer, reliability, communication, responsiveness, and competence are especially important for a service organization.

5. Problems in Evaluating Service Quality

Zeithaml, Parasuraman, and Berry (1990) and Nagel and Cilliers (1990) have examined the difficulties encountered by customers in evaluating the quality of a rendered service. The problems noted by these researchers are:

1. Services are basically intangible. Therefore, service quality is more difficult for customers to evaluate than goods quality because "the criteria customers use to evaluate

service quality may be more difficult to comprehend" (Zeithaml, Parasuraman, & Berry, 1990, p. 16). When purchasing services, the customer has few tangible cues to judge quality. Parasuraman, Zeithaml, and Berry (1985) remark that often the customer is limited to an evaluation of the service provider's physical facilities, equipment, and personnel in judging service quality.

2. Customer involvement in production. "Often customers are actively involved in helping to create the service, either by serving themselves or by cooperating with the service personnel" (Nagel & Cilliers, 1990, Chap 4). As customer involvement in production becomes more intense, the quality of their input has a direct affect on the overall quality of the supplier's performance. (Parasuraman, Zeithaml, & Berry, 1985)

3. Services, especially those with a high labor content, are heterogeneous. Service performance often varies from producer to producer, from customer to customer, and from day to day. (Zeithaml, Parasuraman, & Berry, 1990) These factors frustrate an organization's ability to control quality and deliver a consistent product.

4. Different basis of evaluation. "Customers do not evaluate service quality solely on the outcome of a service; they also consider the process of service delivery (e.g., how involved, responsive, and friendly was the service provider)" (Zeithaml, Parasuraman, & Berry, 1990, p. 16). This implies that customers not only judge the benefits received from a supplier's service, but also how they were treated during performance of the service.

6. Customer Perceptions of Service Quality

Zeithaml, Parasuraman, and Berry (1990) have developed a model which identifies customers' perceptions of service quality. Based on their research, the authors propose the following as the critical dimensions of service quality:

1. Reliability. This dimension refers to the dependability (the company honors its promises) and correctness of the delivered service (the right service the first time).

2. Assurance. This pertains to the knowledge level and courtesy of the service organization's employees. These employees should be courteous and inspire confidence.

3. Tangibles. This dimension concerns the appearance of the organization's physical facilities, equipment, and personnel.

4. Empathy. Empathy refers to the personal understanding and caring, individualized attention provided by a service organization's employees.

5. Responsiveness. Responsiveness means a service organization is willing and able to provide prompt service (1990, p. 20).

Nagel and Cilliers (1990) recommend that organizations utilize the service dimensions identified in this model as a baseline for instrument development, but also add appropriate dimensions tailored to the specific requirements of the organization.

7. Summary

The definitions of customer service highlight that the concepts of customer service and customer satisfaction are tightly intertwined. Both concepts refer to intangible processes, are grounded in customer expectations of performance, and are difficult for customers to evaluate precisely. Based on the customer service literature review, an organization cannot hope to achieve high levels of customer satisfaction without providing high levels of customer service. The research of Mentzer, Gomes, and Krapfel (1989), Bowen, Siehl and Schneider (1989), and Parasuraman, Zeithaml, and Berry's (1990) model are useful to this research effort because they provide the results of previous attempts to identify the general dimensions of customer satisfaction (see chapter summary). These general dimensions were used to develop this research effort's initial

data collection apparatus (see Appendix A: Generic "Menu" of Customer Satisfaction Dimensions and Attributes).

D. MANAGEMENT

According to Nagel and Cilliers (1990), customer satisfaction measurement provides a sound foundation for building a business strategy. "Correctly measuring customer satisfaction leads to more efficient operations which can reduce costs by identifying non-value adding tasks, but can also increase an organization's customer base" (Peterson & Wilson, 1992, p. 61). Although customer satisfaction has been shown to increase profit for businesses (Barsky, 1995), it also can provide benefits to non-profit oriented organizations. Some benefits identified by the Treasury Board of Canada Secretariat (1996) include:

1. Optimizing resource allocation and use to balance customer expectations with departmental mandates and available resources (people, money and time).

2. Identifying opportunities for new services and for service adjustment, which could mean continuing, discontinuing, realigning or transferring services.

3. Improving the quality and effectiveness of services.

4. Determining service relevance and importance.

5. Setting service standards.

6. Providing a method to evaluate employees for incentive purposes (as cited in Forsyth & Chadbourne, 1997, p. 4).

1. Best-in-Business Management Practices

As part of Vice President Gore's National Performance Review (1996), the Federal Benchmarking Consortium sought to identify management practices utilized by

companies considered to be the best-in-business. The Federal Benchmarking Consortium found that best-in-business companies:

1. Encourage customer complaints. These companies "market" their complaint system, notifying customers how to register complaints on every piece of correspondence and advertisement, as well as at all meetings.

2. Seek to delight their customers. These companies go out of their way to exceed customer expectations.

3. Understand their customers. These companies are committed to understanding the customer's perspective. Most best-in-business companies send surveys to customers who have complained recently to see how satisfied they were with how a complaint was handled. These surveys assess customer satisfaction with existing services, delivery of services, helpfulness of employees, and overall performance of the organization.

4. Manage customer expectations. These companies do not wait for customer complaints to come in the door. They try to anticipate the needs and problems of customers and to set realistic expectations through customer education and communication strategies. Research shows that 40 percent of complaints come from customers having inadequate information about a product or a service.

5. Know how to say No. When it is not possible to give the customer what they would like, it is still possible for a customer to feel that he or she has been heard and has been treated fairly. A number of techniques are used by these companies to convey concern - giving customers the best explanation they can; and being open and honest with customers concerning laws and policies of the organization. Being professional and considerate of customers enhances their view of the organization - even when the customer may be disappointed with the outcome.

6. Keep the human touch. Best-in-business companies do not let automation get between the front-line employee and the customer, because they recognize that computers are not a substitute for eye-to-eye contact. (Gore, 1996)

2. Management Use of Customer Satisfaction Data

a. Establish Performance Standards

Zabusky (1995) recommends that organizations use customer satisfaction data to establish performance standards that can be used to identify the areas in which the organization performs well and those which need improvement. It is important to examine

the processes that lead to poor performance, so that management can correct the poor performance or realign their standards to meet customer requirements. (Zabusky, 1995)

Regarding performance standards, President Clinton (1995) considers it important to notify customers of the organization's performance standards because this notification builds confidence among customers that the organization is designed and managed to deliver the results customers want. Although President Clinton acknowledges that publishing standards "may be risky" because "everybody knows the minute you blow it," organizations should publish them anyway to show that they "care more about improving service than saving face" (1995, p. 6).

b. Identify Organizational Performance Gaps

Downs (as cited in Zaltman, 1973) defines performance gaps as discrepancies between what an organizational process is doing and what the customer believes it ought to be doing. March and Simon (as cited in Zaltman, 1973) have identified specific ways in which discrepancies between the customer's criteria of satisfaction and actual organizational performance can occur, which result in performance gaps. The reasons noted by these researchers are:

1. The organization fails to achieve promised levels of performance during actual performance. If performance does not improve, the customer will come to believe that the organization has promised more than it can deliver.

2. The criteria of satisfaction, like aspiration levels in general, tend to adjust themselves upward, which will create a gap if performance levels stay constant.

3. Changes in the organization's internal environment or external environment. Examples of internal changes are: new personnel; technological changes; or shifts in the power relationships within the organization. Examples of external changes are: a change in the importance of the organization's output; technological changes in the larger environment; or changes in the organization's power position. These changes can adversely affect organizational performance, leading to a performance gap.

Barsky (1995) argues that organizational process improvement efforts should use customer, employee, and competitor information to identify performance gaps and remove barriers to customer satisfaction. In performing these process improvement efforts, AT&T Corporation (1989) advises that customer satisfaction should be assessed to "identify gaps between process capability - what a process can be expected to do over the long run - and what represents 100 percent customer satisfaction" (p. 37). This effort will help to identify processes which must be changed to achieve customer satisfaction. "The key is to focus on those processes presenting the highest potential for improvement. By linking these weak processes to internal barriers to customer satisfaction, you can identify problem areas" (Barsky, 1995, p. 89).

3. The Balanced Scorecard Management System

The Balanced Scorecard management system (Kaplan & Norton, 1992; 1996) allows managers to look at their business from four important perspectives (financial, internal business, learning and growth, and customer). The four perspectives of the scorecard take into account the duality of short- and long-term objectives, desired outcomes and performance constraints, and objective and subjective measures. This system is useful because it recognizes that executives do not rely on only one performance measure to manage an organization. Instead, it offers managers a balanced presentation of both financial and operational measures.

The financial perspective includes performance measures which indicate whether "the organization's strategy, implementation, and execution are contributing to bottom-line improvement" (Kaplan & Norton, 1992, p. 77). The internal business perspective

provides "measures which focus on the internal processes that will have the greatest impact on customer satisfaction and achieving an organization's financial objectives" (Kaplan & Norton, 1996, p. 27). The learning and growth perspective identifies the "infrastructure that the organization must build to create long-term growth and improvement. This is the rationale for significant investments in reskilling employees, in information technology and systems, and in enhanced organizational procedures" (Kaplan & Norton, 1996, p. 12). The customer perspective comprises "generic measures of the successful outcomes from a well-formulated and implemented strategy. The core outcome measures include customer satisfaction, customer retention, new customer acquisition, customer profitability, and market and account share in targeted segments" (Kaplan & Norton, 1996, p. 26).

Kaplan and Norton (1992) suggest that customers' concerns tend to fall into four categories: time, quality, performance and service, and cost. The "time" category refers to the time required for the organization to meet its customer's needs. "Quality" measures the defect level of incoming products as perceived and measured by the customer. "Performance and service" measures how the organization's products or services contribute to creating value for its customers. To utilize the Balanced Scorecard, organizations must first establish goals for each of the perspectives, and then translate these goals into specific performance measures. (Kaplan & Norton, 1992) The major advantage of the Balanced Scorecard management system, according to Litman and Wheeler (1997) is that it ensures that no organizational processes are ignored, and that all types of performance measures are examined by organizational decision-makers to present a clear picture of the status of the organization.

The Procurement Task Force formed by the President's Management Council has recommended that agencies utilize the Balanced Scorecard to fulfill the Federal Acquisition and Streamlining Act (FASA) requirement to establish performance measures. (Litman & Wheeler, 1997) Toward this end, the Procurement Task Force has identified four major goals for the procurement system: quality, timeliness, price, and productivity, which organizations can utilize to build their Scorecard systems. One factor emphasized by the Procurement Task Force is that organizations should not just measure processes, but rather use this system to manage and improve them. (Litman & Wheeler, 1997)

4. Summary

This literature review has identified best-in-business management practices, emphasized the importance of establishing and publishing performance standards for an organization, and demonstrated that organizational process improvement efforts should focus on removing internal barriers which limit the organization's ability to deliver total satisfaction to customers. Additionally, the research conducted by March and Simon sheds light on how organizational performance gaps can occur. Their research illustrates that measuring customer satisfaction cannot be a static process, but must continually be updated as changes in the criteria of satisfaction and changes in the organization's internal and external environments occur. Finally, Kaplan and Norton's (1996) Balanced Scorecard management system provides additional elements relating to customer concerns, which have been analyzed for inclusion in the general list of satisfaction dimensions. This management system provides a means for incorporating a customer satisfaction measurement tool into an organization's overall strategic plan.

E. CHAPTER SUMMARY

Customer satisfaction has become an important competitive edge in today's marketplace, playing a key role in achieving customer loyalty and retention, and ultimately, organizational success. Recognizing its importance, some organizations are beginning to evaluate all of their activities, programs, and policies in terms of their contribution to satisfying customers. Those organizations which ignore the importance of customer satisfaction risk losing touch with their customers; who eventually may lose interest in doing business with them.

Researchers are virtually unanimous in their belief that customer satisfaction arises from a comparison of the customer's initial expectations against their perceptions of the product's performance. Expectations are the frame of reference customers use when they assess their satisfaction with a product or service. A customer's expectations are usually not specific, but rather represent a general range of outcomes that customers anticipate based on all the information they have accumulated about the product or service. Recent research has shown that organizations must not only meet, but exceed the expectations of the customer to be assured that the customer will remain loyal.

The dominant conceptual model of satisfaction is the Disconfirmation of Expectations Paradigm. (Churchill & Suprenant, 1982; Patterson, Johnson, & Spreng, 1997) This model asserts that customer satisfaction is related to the degree to which the customer's expectations are not supported by the performance of the product or service. Thus, a sound measurement instrument should compare expectations of performance to perceptions of actual performance.

LaTour and Peat's (1979) definition of customer satisfaction not only stresses the importance of customer expectations, but also provides a roadmap for the customer satisfaction measurement process. Based on their definition, a customer satisfaction measurement instrument should: focus on identifying the satisfaction attributes relevant to the individual customer; determine the relative importance of these attributes; then measure each attribute to determine the difference between the customer's performance expectations for each attribute and the supplier's actual performance of each attribute. The sum of these differences constitutes the individual customer's overall satisfaction rating of the supplier's performance.

Several researchers identified in the literature review have commented on the need to differentiate between customers when measuring satisfaction. According to Rosenberg (1996), "each customer type has its own needs and expectations - needs that can conflict with those of other customers" (p. 59), and Churchill and Suprenant (1982) found that satisfaction was formed differently for customers of low-involvement versus high-involvement products and services. Similarly, Hunt (1977) has pointed out the futility of combining the satisfaction data of individuals to produce an overall customer satisfaction "score" for an organization. These findings suggest that organizations should recognize the unique needs and expectations of customers when designing measurement instruments.

Many researchers have identified dimensions of satisfaction considered important to customers. (Mentzer, Gomes, & Krapfel, 1989; Kaplan & Norton, 1996; Zeithaml, Parasuraman, & Berry, 1990; Litman & Wheeler, 1997; Bowen, Siehl, & Schneider, 1989). A comprehensive list of the dimensions identified by these researchers are: availability, timeliness, quality, price, promotion, performance and service, tangibles,

reliability, responsiveness, assurance, empathy, productivity, communication, and competence. The measurement instrument development process, advocated by Nagel and Cilliers (1990), provides a guide for this research effort.

Although an organization's current performance may result in satisfied customers, it is unrealistic to assume that customers will remain satisfied indefinitely without a continuous focus on process improvement. Not only are changes constantly occurring in the organization's internal and external environments, but also the expectations of the customer are changing as he gains more knowledge of and experience with the organization's product or service. Therefore, organizations should be attentive to the changing needs and expectations of their customers, and focus their efforts on improving internal processes to meet and exceed these changes as they occur. However, this focus on the customer can present a danger that organizational decision-makers ignore other management areas to their detriment.

The review of the problems previously encountered in measuring customer satisfaction, as well as the review of what constitutes an "ideal" measurement instrument have highlighted some of the elements that must be incorporated into a customer satisfaction metric for it to be effective. These elements are:

a. The customer (Program Manager) must play an integral part in identifying the dimension and attributes of satisfaction that will be measured. (Hargett, 1994; Rosenberg, 1996; Forsha, 1992; Zabusky, 1995)

b. The expectations of the customer must be determined, and the organization should be measured based on how well these expectations have been met or exceeded. (Spreng, MacKenzie, & Olshavsky, 1996; Mentzer, Bienstock, and Kahn, 1995)

c. The relative importance of the satisfaction dimensions and attributes to the customer must be determined. (Zeithaml, Parasuraman, & Berry, 1990)

d. The measurement instrument should be reviewed and updated regularly to remain valid and reliable (Mentzer, Bienstock, & Kahn, 1995; Zabusky, 1995), and to prevent the development of performance gaps. (Barsky, 1995)

Based on this literature review, DoD contracting offices may view each customer (Program Manager) satisfaction "score" as a stand-alone management tool. It is important that contracting offices recognize that each PM - PCO relationship has a direct effect on the overall success of both the contracting office and the program office, and that each PM - PCO relationship is distinguishable from all others based on the specific requirements of the acquisition program as well as the knowledge, experience, personalities, attitudes, and biases of the individuals involved. Because each of these relationships is critical to organizational success, and at the same time unique, each relationship must be uniquely measured and uniquely managed. A methodology for measuring each of these unique relationships is provided in Chapter IV.

IV. METHODOLOGY

This chapter discusses the methodology, procedures, and activities used to collect the information necessary to develop the customer satisfaction metric. Three principal activities constituted the research methodology. First, the research participants were identified, consisting of one Procuring Contracting Officer and two Program Managers with whom the Procuring Contracting Officer had established ongoing working relationships. To evaluate whether the research methodology was appropriate for use by a Procuring Contracting Officer to measure the satisfaction of Program Managers, the Procuring Contracting Officer participating in this study was directly involved in the data collection process.

The second principal activity included the research to develop a data collection apparatus and data collection process. No currently available data collection apparatus or process fulfilled all of the requirements for this research effort. This research effort necessitated a methodology which simultaneously: applied to the Program Manager-Procuring Contracting Officer relationship; satisfied the research assumptions identified in Chapter I; and incorporated the elements identified during the literature review as essential for effective customer satisfaction measurement.

The third principal activity of this research methodology involved the application of the data collection apparatus and data collection process to the selected PM - PCO relationships. This activity was performed to evaluate the effectiveness of utilizing the data collection apparatus and process to measure satisfaction in this relationship. This activity also resulted in the collection of the information necessary to develop two tailored customer satisfaction measurement instruments.

A. RESEARCH PARTICIPANTS

The contracting office participating in this study supports many Program Managers. This office primarily awards service type contracts designed to provide technical support to the Program Managers. The contracts awarded by this contracting office are above the simplified acquisition threshold ($100,000.00).

The Procuring Contracting Officer participating in this study is a GS-14 with fifteen years experience in acquisition. She leads a team of four GS-12 and GS-13 contract specialists. She has maintained an ongoing working relationship with both of the Program Managers selected for participation in this study for over three years.

One of the Program Managers participating in this study (identified as Program Manager #1 or PM #1) has over twenty five years of experience in Program Management. He is involved in a broad range of research and development activities. Approximately twenty service contracts have been awarded by the contracting office (and are currently active) to support this Program Manager. Program Manager #1 has established relationships with four Procuring Contracting Officers from the participating contracting office in conjunction with these contracts.

The second Program Manager participating in this study (identified as Program Manager #2 or PM#2) has over twenty years of experience in Program Management. He is involved in Research and Development activities including modeling and simulation, training, high performance computing, and exercise and game support. Three service contracts have been awarded by the contracting office (and are currently active) to support this Program Manager. Each of these contracts are managed by the participating Procuring Contracting Officer.

B. DATA COLLECTION APPARATUS

1. Identification of Customer Satisfaction Dimensions

To develop the list of customer satisfaction dimensions included in the generic "menu", a three step procedure was utilized. First, dimensions noted by researchers during the literature review were identified, as follows:

Mentzer Gomes Krapfel 1989	Bowen Siehl Schneider 1989	Zeithaml Parasuraman Berry 1990	Kaplan Norton 1996	Litman Wheeler 1997
Availability	Empathy	Empathy	Time	Quality
Timeliness	Reliability	Reliability	Quality	Timeliness
Quality of Delivery	Communication	Responsiveness	Performance/Service	Productivity
Product Quality	Responsiveness	Assurance	Price	Price
Price	Competence	Tangibles		
Promotion				

Second, this list was reviewed to eliminate obviously duplicative, essentially redundant, or non-applicable dimensions. Removal of the obviously duplicative dimensions resulted in the following revised list of fifteen satisfaction dimensions:

Availability	Timeliness	Quality of Delivery
Product Quality	Price	Promotion
Tangibles	Reliability	Performance and Service
Responsiveness	Assurance	Empathy
Productivity	Communication	Competence

Based on the dimension descriptions provided in the literature review, several dimensions included in this list were considered by the researcher to be essentially redundant. These dimensions were:

Timeliness versus Responsiveness
Assurance versus Competence
Productivity versus Performance and Service

Therefore, the dimensions of Timeliness, Assurance, and Productivity were eliminated. Additionally, the dimension entitled Promotion was eliminated because it was perceived by

the researcher to have no applicability to a PM - PCO relationship. As a result, only eleven of the fifteen satisfaction dimensions identified through the literature review were considered applicable to the PM - PCO relationship.

The third procedural step involved identifying additional dimensions of satisfaction considered relevant to the PM - PCO relationship, but not identified during the literature review. This was accomplished by consulting experts in the field of DoD acquisition, as recommended by Nagel and Cilliers (1990). Each expert consulted had previously been assigned as either a Program Manager or Procuring Contracting Officer, providing each with intimate, detailed knowledge of the PM - PCO relationship. Three experts were consulted for this research effort: retired Army Colonel Mike Boudreau, former Program Manager of the Army Fleet of Medium Tactical Vehicles Program; retired Army Colonel David Matthews, former Program Manager of the Army Tactical Missile System Program and; active duty Navy Commander Jeffrey Cuskey, former Deputy Procuring Contracting Officer for the Navy F/A-18E/F Aircraft Program. These experts considered the following satisfaction dimensions to also be relevant to the PM - PCO relationship:

Innovativeness
Flexibility
Professionalism
Negotiation Skills
Team Work

Therefore, these dimensions were added to the data collection apparatus. These additions helped to ensure the data collection apparatus represented a complete list of relevant satisfaction dimensions. Therefore, the final data collection apparatus included the following sixteen dimensions of satisfaction:

Availability	Empathy
Responsiveness	Professionalism
Reliability	Negotiation Skills
Quality of Delivery	Innovativeness
Product Quality	Flexibility
Price	Team Work
Performance and Service	Communication
Tangibles	Competence

2. Identification of Dimensional Attributes

In addition to developing a list of customer satisfaction dimensions relevant to the PM - PCO relationship, the researcher developed a separate list of attributes for each of the sixteen dimensions included in the data collection apparatus. The purpose of the lists of attributes was to provide the Program Manager with a list of specific activities which describe each satisfaction dimension. The Program Manager could select any attributes considered relevant to his personal satisfaction as part of the effort to tailor the measurement instrument to his personal requirements.

The lists of attributes for each dimension were developed by analyzing customer satisfaction measurement instruments currently used by the Naval Sea Systems Command contracting office, the Space and Naval Warfare Systems Command contracting office, the Defense Contract Management Command - West, and the Naval Air Systems Command contracting office. In addition, customer service and customer satisfaction measurement instruments developed through prior thesis research efforts were examined. (Morris & Birdwell, 1988; Allen, 1997; Forsyth & Chadbourne, 1997) To enhance the accuracy, relevancy, and completeness of the lists of attributes, the lists of attributes developed by the researcher were submitted to the previously referenced acquisition experts for their review. Their input was considered for incorporation into the data collection apparatus.

C. REVIEW AND APPROVAL BY PARTICIPATING PCO

The participating Procuring Contracting Officer possessed knowledge of the Program Managers participating in this study that was superior to that of the researcher. To utilize this superior knowledge, the participating Procuring Contracting Officer was given the opportunity to review and approve the research assumptions (see Chapter I), the data collection apparatus, and the data collection process. This review ensured the basic methodology more closely conformed to the requirements of each PM - PCO relationship and assisted the participating Procuring Contracting Officer to gain a sense of ownership of the research methodology. Since the Procuring Contracting Officer was to be an integral part of the data collection process, this was considered an essential step.

The participating Procuring Contracting Officer recommended one change to the data collection apparatus, adding one attribute (Has a "Can Do" Attitude) to the list of attributes describing the dimension entitled Flexibility. The research assumptions and data collection process were approved by the participating Procuring Contracting Officer without revision. The approved data collection apparatus and process were utilized to collect the information from both of the participating Program Managers. This information was utilized to develop a customer satisfaction metric tailored for each Program Manager.

D. PILOT TESTING

To evaluate the effectiveness of the research methodology, the initial data collection apparatus and initial data collection process were pilot tested. Pilot testing was conducted with two former Program Managers, retired Army Colonel Mike Boudreau and retired Army Colonel David Matthews. This testing identified that the initial data

collection process was too complex for its intended purpose, resulting in the consumption of an inordinate amount of the Program Manager's time. This violated one of the basic research assumptions of this thesis. Therefore, modifications were performed to streamline the initial data collection process.

Additionally, pilot testing identified that the planned measurement instrument format was unduly complex, requiring a considerable amount of the Program Manager's time to complete. The initial format called for the Program Manager to score the Procuring Contracting Officer's performance for each attribute included in the measurement instrument. However, since the measurement instrument could easily include a large number of attributes, scoring each one would place a significant burden on the Program Manager. Therefore, this concept was abandoned. Instead, the Program Manager would be asked to score the Procuring Contracting Officer's performance at the dimension level, while allowing the Program Manager to indicate satisfaction or dissatisfaction with the PCO's performance at the attribute level. This procedure simplified the scoring process, while still incorporating those elements considered essential for effective customer satisfaction measurement. The data collection process and measurement instrument format described throughout the remainder of this thesis include these modifications.

E. DATA COLLECTION PROCESS

The data collection process developed for this research effort was generally based on: the measurement instrument development process advocated by Nagel and Cilliers (1990); the characteristics of an "ideal" measurement program identified by Mentzer,

Bienstock, and Kahn (1995) and Zabusky (1995); as well as other sources cited in the literature review. It was designed to accomplish four objectives:

1. To identify satisfaction dimensions and attributes considered relevant to the Program Manager's personal satisfaction.

2. To determine the relative importance of each attribute (within each dimension) to the Program Manager.

3. To ascertain the Program Manager's expectations of performance concerning each relevant attribute.

4. To determine the relative importance of each relevant dimension of satisfaction to the Program Manager.

The data collection process was divided into two phases, designated Phase I and Phase II. Phase I involved the completion of several preliminary steps of the data collection process solely by the participating Program Manager, while Phase II involved completing the remainder of the data collection process during a face-to-face meeting. For this research effort, phase II was conducted during face-to-face meetings between the participating Program Manager, the participating Procuring Contracting Officer, and the researcher.

Two primary benefits were gained by conducting the data collection process in two phases. First, the number of steps to be completed during Phase II (the face-to-face meeting) was reduced, increasing the likelihood that one meeting of the participants would be sufficient to complete the remainder of the data collection process. This benefit was considered significant because the research participants were not located in the same geographic area, rendering face-to-face meetings difficult. Second, it provided the

participating Program Manager with adequate time to contemplate how he would like to structure his personal satisfaction measurement instrument. The researcher believed that by providing the participating Program Managers with additional time to complete the preliminary steps embodied in Phase I, the ultimate customer satisfaction measurement instruments would be significantly improved.

1. Phase I

Phase I was designed to accomplish the first two objectives of the data collection process outlined above. Written guidance for completing phase I of the data collection process was mailed to both Program Managers, consisting of a coverletter and two enclosures. The coverletter provided an overview of the customer satisfaction measurement program. Enclosure (1) provided detailed instructions concerning what actions were specifically required to complete Phase I. Enclosure (2) provided the data collection apparatus (entitled the Generic "Menu" of Customer Satisfaction Dimensions and Attributes) used to complete Phase I. This coverletter, with enclosures, is provided as Appendix A.

The data collection apparatus supported the Program Manager's effort to determine which customer satisfaction dimensions (and the attributes which describe each dimension) were relevant by providing a generic menu of customer satisfaction dimensions and attributes from which to choose. The Program Manager selected from this generic menu only those dimensions and attributes perceived as relevant to his personal satisfaction. Additionally, both Program Managers were encouraged to: delete attributes and dimensions from the menu considered irrelevant to his personal satisfaction; add dimensions or attributes which did not appear on the menu but were, nevertheless,

considered relevant; rename existing dimensions or create new ones; and reassign attributes to different dimensions, if considered appropriate.

The final step of Phase I was for the Program Manager to rank the relevant attributes within each dimension to indicate which attributes were of most importance to the Program Manager within a particular dimension. This task accomplished the second objective of the data collection process. After completing phase I, the Program Manager was directed to return enclosure (2), including all revisions, to the participating Procuring Contracting Officer. The researcher revised enclosure (2) accordingly in preparation for Phase II of the data collection process.

2. Phase II

Phase II was designed to accomplish the remaining two objectives of the data collection process; identifying performance expectations of attributes and relative importance of dimensions. After enclosure (2) was revised, the participating Procuring Contracting Officer scheduled a separate face-to-face meeting with each Program Manager to conduct Phase II. The participating Procuring Contracting Officer acted as the leader of the data collection process during these meetings. The researcher acted as a facilitator and observer during these meetings.

An in-depth discussion of the attributes listed under each dimension of satisfaction was conducted between the participating Procuring Contracting Officer and the Program Manager to determine the Program Manager's performance expectations concerning each attribute of satisfaction. These discussions provided the Procuring Contracting Officer with insight into what specific activities or outcomes were expected by the Program Manager concerning each attribute. Some attributes were already worded such that they

reflected the Program Manager's performance expectations, and as such, did not require further modification. However, the attributes which did not reflect the Program Manager's performance expectations were reworded.

To identify the relative importance ranking of each dimension of satisfaction, the Program Manager was directed to assign "Importance" points to weight each dimension based on its relative importance to his overall satisfaction. Each Program Manager was allowed a total of one hundred Importance points with which to rank the dimensions.

The final step of phase II involved tailoring three aspects of the measurement program to the Program Manager's requirements: the measurement instrument structure; the measurement schedule; and how the measurement instrument would be updated to reflect the Program Manager's changing needs and expectations. To identify what measurement instrument structure the Program Manager believed to be of most benefit to him, the Program Manager was asked five specific questions:

1. Do you desire to have the importance weightings assigned to each dimension appear on the measurement instrument?

2. Do you desire to have the score you gave each dimension during the preceding measurement cycle appear on the next measurement instrument?

3. Would you like to provide written comments about our performance on the final measurement instrument? Comments can be provided after each dimension, at the end of the measurement instrument, or both.

4. When should the measurement instrument by sent to you? The periodicity with which the Program Manager's satisfaction is measured should be a point of mutual agreement. The agreed upon periodicity should balance the Program Manager's desire to not be burdened by over-frequent measurement and the Procuring Contracting Officer's desire to gain meaningful information on a timely basis.

5. How would you like to keep this measurement instrument up-to-date as your needs and expectations change? The first option is for the Program Manager to modify and update the measurement instrument during each measurement cycle. This is possible

because the measurement instrument is structured so that a Program Manager may delete or add dimensions, delete or add attributes, and modify the importance weightings assigned to dimensions. The second option is to schedule a face-to-face meeting between the Program Manager and the Procuring Contracting Officer after the passage of a specific period of time specifically for the purpose of reviewing and updating the measurement instrument.

After completing the data collection process with both Program Managers, the researcher interviewed the Procuring Contracting Officer and both Program Managers by telephone to gain their opinion of the overall research methodology. Five specific questions were asked of the research participants in conjunction with this effort:

1. Do you think this process improves communication between the Program Manager and the Procuring Contracting Officer?

2. What are the benefits of this process?

3. What are the flaws in this process?

4. Do you have any recommendations for improving the process?

5. Was this process worth the time invested?

Through these interviews, strengths and weaknesses in the data collection apparatus and process were identified.

E. CHAPTER SUMMARY

The data collection apparatus developed for this research effort represented a list or "menu" of customer satisfaction dimensions (and the attributes which describe each dimension). This menu allowed the Program Manager to quickly identify satisfaction dimensions and attributes considered relevant to his personal satisfaction. These dimensions and attributes could then be further refined during the data collection process.

By completing both phases of the data collection process, the data collection apparatus was transformed from a generic menu into a set of tailored customer satisfaction

dimensions and attributes, considered both relevant and important to the Program Manager. By combining the data collection apparatus and data collection process, a useful methodology for developing a customer satisfaction measurement instrument was provided. This methodology was directly applicable to the PM - PCO relationship, satisfied the research assumptions listed in Chapter I, and incorporated those elements from the literature review considered essential for effective customer satisfaction measurement. Application of this research methodology to the selected PM - PCO relationships resulted in the collection of all the information necessary to develop a customer satisfaction measurement instrument tailored specifically to each of the individual Program Managers who participated in this research effort.

V. RESULTS AND ANALYSIS

This chapter discusses the research results and provides an analysis of the data obtained during each step of the process used to develop the two tailored customer satisfaction measurement instruments. First, deviations from the research methodology (described in Chapter IV) which occurred during the data collection process are discussed. For the analysis, two primary focuses were utilized. One focus was to determine the implications of the results to the data collection process itself. Based on these results, several improvements to the overall data collection methodology for developing tailored customer satisfaction measurement instruments were identified. A second focus was to relate the results to the research literature.

A number of documents pertinent to discussion of the results and analysis are included in appendices. Appendix A is the written guidance to the Program Manager for completing Phase I of the data collection process. Appendices B and C are the customer satisfaction measurement instruments developed for Program Manager #1 and Program Manager #2, respectively. Appendix D is the written instructions to the Procuring Contracting Officer concerning: how to conduct the data collection process; how to develop the measurement instrument; and how to calculate a customer satisfaction score.

A. VARIATIONS FROM THE RESEARCH METHODOLOGY

Phase I of the data collection process (as discussed in Chapter IV) was designed to be completed independently by the Program Manager without assistance from the PCO. For PM #1, however, it was not conducted in this manner. Rather, Phase I was conducted during a face-to-face meeting between PM#1, the PCO, and the researcher, at the PCO's facility on October 14, 1997. Two hours were required to complete Phase I with PM#1.

This particular deviation occurred because PM#1 had already arranged to travel to the PCO's facility in conjunction with other business, presenting the opportunity to meet directly with PM#1. The data collection apparatus (Appendix A) was not delivered to PM#1 prior to this meeting. Therefore, his first exposure to the data collection apparatus and data collection process was during the Phase I meeting.

For PM#2, Phase I was conducted in accordance with the research methodology, but some of the results obtained were unsatisfactory. Written guidance (Appendix A) was hand-delivered to PM#2 on October 17, 1997 to assist him in completing Phase I. With this guidance, it was assumed a Program Manager would be able to independently complete the Phase I requirements. Therefore, no oral discussions of the Phase I requirements were held with PM#2.

PM#2 utilized the written guidance, but did not complete all of the steps comprising Phase I of the data collection process. The attributes under each dimension were ranked in accordance with the Phase I guidance, but no attempt was made to delete or add attributes or dimensions. Therefore, these Phase I steps were completed at the outset of the Phase II meeting with PM#2 before proceeding with Phase II of the data collection process.

B. PHASE I

This phase was designed to accomplish two objectives: first, to identify satisfaction dimensions and attributes considered relevant to the Program Manager's personal satisfaction; and second, to determine the relative importance of each attribute (within each dimension) to the Program Manager. This was accomplished by the Program Manager through performance of the following tasks: adding dimensions to or deleting

dimensions from the list of satisfaction dimensions included in the generic data collection apparatus; adding appropriate attributes to, deleting inappropriate attributes from, or moving attributes within the data collection apparatus; and ranking the attributes within each dimension of satisfaction according to their relative importance (as perceived by the Program Manager) to that dimension. Through this series of steps, the data collection apparatus had begun to be tailored to the Program Manager's requirements.

1. Modifying the Dimensions of Satisfaction

a. Results

During Phase I, no dimensions of satisfaction were deleted or added by either Program Manager. However, one dimension was renamed by PM#1 (Empathy to Sense of Ownership). While not initially a part of the plan, further refinements to the lists of dimensions occurred during the Phase II meeting. PM#1 deleted two dimensions (Reliability and Professionalism) and renamed two dimensions (Quality of Delivery to Consistency of Service and Sense of Ownership to Professionalism). PM#2 made no additional changes during Phase II. Of the sixteen dimensions of satisfaction included in the data collection apparatus, fourteen were considered relevant by both Program Managers. These dimensions are:

Responsiveness
Competence
Communication
Negotiation Skills
Availability
Quality of Delivery (renamed during process)
Product Quality
Innovativeness
Flexibility
Empathy (renamed during process)
Team Work

Performance and Service
Tangibles
Price

b. Implications of Results to the Data Collection Process

The results obtained from both Program Managers concerning the modifications made to the satisfaction dimensions appear to support the adequacy of the current data collection apparatus and data collection process. Based on these results, tailoring the list of dimensions included in the data collection apparatus appears to be a logical starting point in the measurement instrument development process. However, it should be recognized that further refinements can occur through Phase II as Program Managers give further consideration to the dimensions of saisfaction. Further, if a contracting office does not wish to tailor the list of dimensions as part of its measurement instrument development process, the office should strongly consider including at least these fourteen dimensions in any measurement instrument designed to assess a Program Manager's level of satisfaction.

Few modifications were made by either Program Manager to the list of satisfaction dimensions included in the data collection apparatus. This suggests that both Program Managers considered most of the dimensions included in the apparatus to be applicable and relevant to the PM - PCO relationship. Additionally, no dimensions were added by either Program Manager during either phase of the data collection process, which suggests that both Program Managers considered the list of satisfaction dimensions to be complete. These results should increase the PCO's confidence that the data collection apparatus is appropriate for use in developing a customer satisfaction measurement instrument tailored to an individual Program Manager.

c. Analysis Related to Research Literature

The sixteen dimensions of satisfaction included in the data collection apparatus were previously identified by researchers (Mentzer, Gomes & Krapfel, 1989; Bowen, Siehl, & Schneider, 1989; Zeithaml, Parasuraman & Berry, 1990; Kaplan & Norton, 1996; Litman & Wheeler, 1997) as generally applicable to a customer's satisfaction formation construct. Since few modifications were made to this list of dimensions by the Program Managers, it appears that these dimensions are also specifically applicable to a Program Manager's satisfaction formation construct.

After completion of this step of the data collection process, both Program Managers had identified a different but very similar set of dimensions relevant to their personal satisfaction. This result does not appear to support Comola's (1988) observation that customers apply a unique set of dimensions in determining their personal satisfaction. However, the results obtained through this research effort are based on a very small sample size. Additionally, the customers who participated in this research effort share many common characteristics (i.e., both very experienced in the acquisition process, both involved in research and development activities, both supported by service contracts, both supported by the same Procuring Contracting Officer, and both currently satisfied with the PCO's performance). Therefore, it would be premature to conclude that Program Managers apply a similar set of dimensions in determining their personal satisfaction based solely on this research effort.

Nagel and Cilliers (1990) espouse that the first step in developing a customer satisfaction measurement instrument should be to specify the domain of the construct. This step of the data collection process accomplishes that effort by allowing

the Program Manager to select which dimensions of satisfaction will be included and excluded from the measurement instrument. Through this process, the customer identifies "what" should be measured. This ensures that only those "determinants of satisfaction" valued by the customer will be measured.

2. Modifying the Lists of Attributes

a. Results

By the completion of Phase II, both Program Managers had made extensive modifications to the lists of attributes included in the data collection apparatus. During Phase I, PM#1 deleted nineteen of the ninety-six total attributes included in the data collection apparatus, and made the following modifications during Phase II: fourteen additional attributes were deleted; two attributes were added; and two attributes were moved from one dimension to another. PM#2 made no modifications to the lists of attributes during Phase I, but during Phase II he made the following modifications: twenty-five of the ninety-six total attributes were deleted; nine attributes were added; and one attribute was moved.

There was some similarity between the two Program Managers concerning the deletion of attributes. Of the number of attributes deleted, thirteen were deleted by both Program Managers. However, there was no similarity in the movement of attributes or in attributes added between the two Program Managers. It should also be noted that seven of the nine attributes added by PM#2 were not true additions, but merely subdivisions of existing attributes. For example, the attribute "Executes crucial program documentation promptly" was subdivided into "Executes crucial program documentation promptly - West Coast" and "Executes crucial program documentation promptly - East

Coast." This distinction was made because PM#2 desired to indicate separately his satisfaction with the performance of the PCO's East Coast and West Coast facilities.

The modifications made to the lists of attributes included in the data collection apparatus suggest that Program Managers have unique requirements which drive their personal satisfaction. For example, of the fourteen lists of attributes which can be compared between the two Program Managers, only four lists (under the dimensions Flexibility, Empathy, Innovativeness, and Negotiation Skills) were similar after completion of the tailoring process. This is especially noteworthy since both Program Managers are engaged in similar program management efforts.

b. Implications of Results to the Data Collection Process

Relatively few of the attributes included in the data collection apparatus were moved from one dimension to another (two by PM#1; one by PM#2). This suggests that both Program Managers concurred with the initial assignment of attributes to the dimensions included in the data collection apparatus. Also, both Program Managers added relatively few attributes to the lists of attributes included in the data collection apparatus. This suggests that both Program Managers considered the lists of attributes included in the data collection apparatus to be nearly complete, incorporating most of the attributes applicable to this relationship.

Of the attributes deleted during this step of the data collection process, thirteen were deleted by both Program Managers. This result is not considered significant, however. Although both of the Program Managers participating in this research effort deleted the same thirteen attributes, this does not necessarily indicate these attributes should be permanently removed from the data collection apparatus. Each attribute is not

intended to apply to all types of Program Managers or all types of program management situations. In fact, many of the attributes may only apply to one type of Program Manager or program management situation. This is appropriate since the data collection apparatus was designed to apply to a wide range of program management requirements. To draw definitive conclusions concerning which attributes, if any, should be permanently deleted from the data collection apparatus, a large number of Program Managers, representing diverse program management situations would have to participate in the data collection process. Only those attributes which were consistently deleted by an adequate sample of Program Managers could be considered for permanent deletion. Appendix E lists the thirteen deleted attributes.

The data collection apparatus was not designed to specifically apply to the Program Managers who participated in this research effort. Nevertheless, by completing the data collection process, both Program Managers had extensively modified the lists of attributes to meet their personal requirements. This is significant because it demonstrates how the tailoring of attributes by Program Managers gives insight into which activities must be performed or outcomes achieved to satisfy the Program Manager. These results should increase the PCO's confidence that the data collection process is appropriate for use in developing a tailored customer satisfaction measurement instrument.

These results have revealed two shortcomings in the data collection process, however. First, PM#2 considered the written guidance provided him for conducting Phase I to be unclear. This contributed to PM#2 not properly completing Phase I of the data collection process. To correct this deficiency, the written guidance (Appendix A) developed for assisting Program Managers to complete Phase I was

modified to improve its overall clarity. Also, the instructions to PCOs for instituting the Customer Satisfaction Measurement Program (Appendix D) were revised to include a recommendation that, in addition to providing Program Managers with written guidance, PCOs should review the Phase I requirements with the Program Manager during a face-to-face meeting. By supporting the written guidance with oral discussions, there is an increased probability that the Program Manager will properly complete Phase I.

The second deficiency identified during this step of the data collection process was that adequate time was not provided the Program Managers during Phase I to contemplate the range of possible modifications to the lists of attributes. This resulted in more extensive modifications being made to the lists of attributes during Phase II than during Phase I. PM#1 was not given the opportunity to review the data collection apparatus prior to the face-to-face meeting held to conduct Phase I. Therefore, he had no opportunity to consider what modifications he desired to make to the lists of attributes prior to the actual conduct of the Phase I meeting. For PM#2, Appendix A was not delivered to him early enough to allow him adequate time to properly complete Phase I. Due to other commitments, PM#2 was forced to complete Phase I in one working day. This provided little opportunity for PM#2 to consider the range of possible modifications to the lists of attributes.

The researcher speculates that because a period of time elapsed between the conduct of Phase I and the conduct of Phase II, both Program Managers had time to contemplate further modifications to the data collection apparatus. Therefore, when Phase II was conducted, both Program Managers had identified additional modifications to the data collection apparatus, which were then made during Phase II. To ensure that

Program Managers sufficiently modify the data collection apparatus during Phase I as intended, Appendix D was further revised to include two recommendations: Program Managers should be given at least one week to complete Phase I; and Phase I should be scheduled to occur when the Program Manager has enough time to devote to this effort.

It should be noted, however, that due to the complexity of the satisfaction formation process, several iterations of the tailoring process may be necessary for the Program Manager to adequately tailor the data collection apparatus to his personal requirements. Even if the recommendations noted above are followed, the Program Manager may still desire to make additional modifications to the data collection apparatus during Phase II. This occurrence should be viewed positively by the PCO because it signals that the Program Manager has "bought into" the data collection process, and the ultimate measurement instrument will conform more closely to the Program Manager's needs. Therefore, the PCO should continue to encourage the Program Manager to make additional modifications to the data collection apparatus during Phase II.

c. Analysis Related to Research Literature

The second step in the measurement instrument development process advocated by Nagel and Cilliers (1990) is to generate an item pool composed of a set of items which tap each of the dimensions of the construct. The data collection apparatus supports this effort by providing a "menu" of items (attributes) to the Program Manager. The Program Manager tailors the item pool by selecting those attributes from the menu that he believes best "tap" each dimension he has already selected, and adding attributes as he considers necessary.

LaTour and Peat (1979) note that customers define each dimension of satisfaction differently. The results obtained during this step of the data collection process support this point because the two Program Managers varied significantly in their perceptions of which attributes were most appropriate for describing a particular dimension of satisfaction. To accommodate these differences, a customer satisfaction measurement instrument development process should be structured to identify the Program Manager's unique requirements at the attribute level, not merely at the dimensional level. This will ensure the measurement instrument provides each PCO with more meaningful information for guiding his performance.

Mills and Clark's (1982) discussion of interaction "benefits" and "costs" also relates to this step of the data collection process. By selecting those attributes which best "tap" each dimension, the Program Manager is, in essence, identifying the interaction "benefits" he expects to receive. If the PCO fails to provide these expected "benefits", the Program Manager may feel anxiety or discomfort, which increases his "costs" in the relationship. Therefore, this customer satisfaction measurement instrument allows the PM to indicate how well the PCO has delivered the "benefits" the PM expects.

3. Ranking the Attributes Which Describe Each Dimension

A third Phase I task asked the Program Manager to rank each attribute according to its relative importance to the Program Manager. The attributes would then be arranged beneath a dimension according to their relative importance. By arranging the attributes in this manner on the measurement instrument, a simple visual indicator would be provided to the PCO of the relative importance of each attribute (within a dimension).

a. Results

A comparison was performed of the rankings assigned to the attributes by the Program Managers. To be eligible for comparison, an attribute must have been retained under the same dimension by both Program Managers. Of the sixty-three attributes retained by PM#1, and seventy-one attributes retained by PM#2, forty-seven qualified for this comparison. The results of this comparison are provided below. For each attribute, two datapoints are displayed: the ranking assigned by the Program Manager (the first digit); and the total number of attributes considered relevant to the dimension by the Program Manager (the second digit). The following attributes were similarly ranked by the Program Managers:

DIMENSION: PRODUCT QUALITY

ATTRIBUTE	PM#1	PM#2
Contracts/mods structured to meet program requirements	1 of 4	2 of 7
Contract/modification structured to avoid unnecessary contract management	2 of 4	3 of 7

DIMENSION: AVAILABILITY

ATTRIBUTE	PM#1	PM#2
Contracting support continues when PCO absent (leave, TDY, etc.)	2 of 3	2 of 6
Contracting office physically located close to program office	3 of 3	6 of 6

DIMENSION: COMPETENCE

ATTRIBUTE	PM#1	PM#2
Keeps abreast of latest developments in acquisition	1 of 5	2 of 4
Understands advantages and disadvantages of every contract vehicle	3 of 5	4 of 4

DIMENSION: FLEXIBILITY

ATTRIBUTE	PM#1	PM#2
Has a "Can Do" attitude	1 of 4	1 of 5
More concerned with what can be legally accomplished than what law prevents	2 of 4	2 of 5
Considers all possibilities for meeting program office needs	3 of 4	4 of 5
Generates options quickly to resolve program problems	4 of 4	5 of 5

DIMENSION: EMPATHY

ATTRIBUTE	PM#1	PM#2
Considers the needs of the program office	1 of 5	2 of 5
Considers program office's best interests in decision-making	2 of 5	1 of 5
Considers the impact of late or inaccurate products or services	3 of 5	3 of 5
Consistently friendly and courteous	5 of 5	4 of 5

DIMENSION: INNOVATIVENESS

ATTRIBUTE	PM#1	PM#2
Achieves program office objectives while operating within constraints	1 of 6	1 of 5
Eliminates unnecessary/non value-added steps in the procurement process	2 of 6	2 of 5
Develops creative contracting solutions to problems	4 of 6	4 of 5
Designs contracts that provide flexibility to the program	5 of 6	5 of 5

DIMENSION: PERFORMANCE AND SERVICE

ATTRIBUTE	PM#1	PM#2
Meets deadlines (urgent through routine)	1 of 3	1 of 5
Completes contract awards/modifications on schedule	2 of 3	2 of 5

DIMENSION: TEAM WORK

ATTRIBUTE	PM#1	PM#2
Provides status to program office during the procurement process	2 of 4	2 of 3

DIMENSION: COMMUNICATION

ATTRIBUTE	PM#1	PM#2
Promulgates new developments in procurement policy	2 of 6	2 of 6
Explains to functional personnel what is needed to perform contracting function	3 of 6	3 of 6

DIMENSION: NEGOTIATION SKILLS

ATTRIBUTE	PM#1	PM#2
Concludes negotiations on time to meet contract/modification award date	1 of 8	1 of 6
Negotiates a "win - win" agreement	3 of 8	3 of 6
Understands negotiation "must haves" versus "should haves"	5 of 8	4 of 6
Promotes settlement (does not get personal or defensive)	6 of 8	5 of 6
Influences contractor to resolve disputes quickly (resoluteness of purpose)	7 of 8	6 of 6

Of the forty-seven attributes eligible for comparison, twenty-eight were ranked similarly by the two Program Managers. These results suggest a strong similarity in how attributes are ranked by Program Managers.

Despite these similarities, the Program Managers exhibited several significant differences in how they ranked the attributes included in the data collection apparatus. For example, three of the attributes ranked highest or second highest by PM#1 were deleted altogether by PM#2. Likewise, four attributes ranked highest or second highest by PM#2 were deleted by PM#1. The attributes falling into this category include:

DIMENSION	ATTRIBUTE	PM#1	PM#2
Product Quality	No major mistakes in contracts/modifications	deleted	1 of 7
Availability	Assists program office personnel seeking help	deleted	1 of 6
Availability	# of contracting personnel commensurate w/ workload	1 of 3	deleted
Competence	Provides accurate and reliable information	deleted	1 of 4
Competence	Intimately familiar with a program's contracts	2 of 5	deleted
Negotiation Skills	Negotiates a "fair deal" for the Govt and contractor	2 of 8	deleted
Team Work	Discusses contract changes with program office personnel	deleted	1 of 3

b. Implications of Results to the Data Collection Process

The results obtained during this step of the data collection process appear to support the adequacy of the current data collection apparatus, but has revealed a deficiency in the data collection process. The data collection process specified ranking the attributes prior to identifying performance expectations for them. The steps were performed in this order. However, after identifying performance expectations for the attributes, both Program Managers desired to adjust the rankings they had assigned to some of the attributes. The researcher speculates that this occurred because once the attributes were more precisely defined, the Program Managers had more information with which to evaluate and rank the attributes. Therefore, the researcher concluded that a second attribute ranking step should be added during Phase II. After all the attributes describing a dimension were modified to incorporate the Program Manager's performance expectations, the Program Manager would be allowed to rerank the attributes, if desired. Appendices A and D were revised to reflect this modification.

The value of having the PCO review and approve the data collection apparatus has been demonstrated. The attribute added by the participating PCO to the apparatus (Has a 'Can Do" attitude) was ranked highest by both Program Managers. This result suggests that a PCO may possess knowledge of the relationship being measured which should be harnessed prior to conducting the data collection process. Therefore,

Appendix D was revised to include a recommendation that PCOs should review the data collection apparatus to ensure it includes all dimensions and attributes they believe their customer Program Manager will consider relevant to his personal satisfaction. Any missing dimensions or attributes should be added to the apparatus by the PCO prior to sending it to the Program Manager. Conversely, only the Program Manager should be allowed to delete attributes.

c. Analysis Related to Research Literature

Parasuraman, Zeithaml, and Berry (1985) have noted that in previous research efforts, customers applied different relative importance weightings to similar criteria for judging quality. This research effort does not support or reject this finding. Twenty-eight of the forty-seven comparable attributes were similarly weighted by the Program Managers, but nineteen were not. Additionally, there were several instances of extreme differences in how a particular attribute was weighted.

C. PHASE II

Phase II of the data collection process was designed to accomplish two objectives. The first objective was to identify the Program Manager's expectations of performance for each attribute remaining on the data collection apparatus after Phase I. In-depth discussions of each attribute between the Program Manager and the PCO were utilized to perform this task. As performance expectations were identified, the associated attribute was reworded to better reflect the Program Manager's expectation. The second objective was to determine the relative importance of each dimension of satisfaction to the Program Manager. This was accomplished through the assignment of Importance points to the dimensions. The Program Manager was given one hundred total Importance points to

distribute across all the dimensions. Each dimension was weighted commensurate with its relative importance to the Program Manager.

Phase II was conducted with both Program Managers in accordance with the research methodology. On October 21, 1997, separate Phase II meetings were conducted at each Program Manager's facility. The Program Manager, the PCO, and the researcher attended these meetings. Approximately two and one half hours were required to complete Phase II with PM#1; three hours were required to complete Phase II with PM#2.

1. Rewording Attributes to Reflect Performance Expectations

a. Results

During Phase II, it was revealed that many of the attributes included in the data collection apparatus were already worded such that they reflected the Program Manager's expectations of performance. For example, of the sixty-three attributes retained by PM#1, only twenty-nine were reworded to better reflect his performance expectations. Of PM#2's seventy-one attributes of interest, only sixteen were reworded to better reflect his performance expectations. These numbers do not include the attributes which were added by the Program Managers. At inclusion, these attributes were worded such that the Program Manager's performance expectations were reflected.

Of the number of modifications made by both Program Managers, only one of the modifications was identical. Under the dimension entitled Empathy, the attribute "Considers the needs of the program office", was modified by both Program Managers to "Considers the needs of the COR." This modification suggests that both Program Managers consider the Contracting Officer's Representative (COR) to hold a key position

in their organization. It may also reflect the type of work performed by the Program Managers and/or the development/maturity of the Program Managers' programs.

b. Implications of Results to the Data Collection Process

The results obtained from both Program Managers during this step of the data collection process appear to support the adequacy of the current data collection apparatus and data collection process. Many attributes were discussed at great length by the Program Manager and the PCO, yet were accepted as stated to reflect the Program Manager's performance expectations. The researcher speculates that this occurred because both felt that, through these in-depth discussions, the PCO better understood for a particular attribute "what the Program Manager wants." Therefore, no revision to the attribute was necessary.

The researcher did not consider this result to be a problem since the fundamental purpose of this step was to promote the creation of mutual understanding of how the attributes relate to their specific PM - PCO relationship. It is critical to the process that each attribute be discussed, but it is not necessary that these discussions result in the modification of each attribute. Consequently, Appendix D was revised to include a statement notifying PCOs that these in-depth discussions, although critical, may not result in the generation of a great number of modifications to the attributes included in the data collection apparatus.

c. Analysis Related to Research Literature

The dominant conceptual model relating to customer satisfaction is Churchill and Suprenant's (1982) Disconfirmation of Expectations paradigm. This theory asserts that satisfaction is achieved when the customer positively compares his initial

performance expectations with the actual performance of the product or service. Kaplan and Norton (1996) further stress that only when a customer's expectations are exceeded will a customer be satisfied. However, in order for a supplier of a product or service to exceed the customer's performance expectations, the expectations must first be known. In-depth discussions between the PCO and the Program Manager to identify the Program Manager's performance expectations allow the PCO to gain this knowledge. To ensure the PCO exceeds the expectations of the Program Manager, the PCO should treat the Program Manager's performance expectations as a minimum performance threshold.

The in-depth discussions between the PCO and the Program Manager may also help to alleviate the problem of personal "filters" which can frustrate them from attaining true understanding. As noted by Sheridan (1994), individuals perceive reality through personal "filters." These filters may cause the PCO to not appreciate the Program Manager's definition of quality service. The data collection process allows the Program Manager and PCO to discuss the Program Manager's requirements in a face-to-face meeting, providing an opportunity for both parties to overcome the personal "filters" and misconceptions which could be detrimental to their relationship.

Even if a PCO delivers a level of customer service that meets the internal standards of the contracting office, this is no guarantee the Program Manager will be satisfied with the service provided him. According to Barsky (1995), a Program Manager may not be satisfied with good service, if he believes it should have been better. Therefore, contracting offices must assess their customer service standards in terms of the performance expectations of the Program Manager.

2. Determining the Relative Importance of the Dimensions

a. Results

There were distinct similarities (with a few dissimilarities) between the two Program Managers in determining the relative importance of the satisfaction dimensions. Of the fourteen dimensions considered relevant by both Program Managers, several were ranked exactly the same. Rankings were determined on the basis of the distribution of "Importance" points to each dimension (Note that in some cases, the same ranking was assigned to more than one dimension. This occurred if an equal number of "Importance" points were assigned to more than one dimension by the Program Manager). The dimension rankings are provided, as follows:

DIMENSION	PM#1 RANKING	PM#2 RANKING
Innovativeness	4th	4th
Flexibility	4th	4th
Team Work	5th	5th

The following dimensions were ranked similarly (within two points):

DIMENSION	PM#1 RANKING	PM#2 RANKING
Responsiveness	1st	2nd
Competence	1st	2nd
Availability	3rd	2nd
Product Quality	4th	4th
Empathy	5th	5th
Price	7th	7th
Communication	2nd	3rd
Tangibles	6th	7th

The following dimensions were ranked dissimilarly (not within two points):

DIMENSION	PM#1 RANKING	PM#2 RANKING
Negotiation Skills	3rd	7th
Quality of Delivery	3rd	6th
Performance and Service	6th	1st

b. Implications of Results to the Data Collection Process

The results obtained from both Program Managers during this step of the data collection process appear to support the adequacy of the current data collection apparatus and data collection process. It should be noted that although both Program Managers similarly ranked a particular dimension, this does not mean they value the dimension equally. Due to the differences in the attributes used to describe a dimension, different attribute performance expectations, and different attribute relative importance weightings, in most cases the Program Managers are placing a relative importance value on a significantly different set of activities or outcomes.

General comparisons can still be made at the dimensional level between the Program Managers, however. For example, although specific perceptions may differ, the results generally indicate that both Program Managers highly value a PCO who is "competent", "responsive" to their needs, and has strong "communication" skills. Likewise, both Program Managers appear to be less concerned about what "price" they must pay contractors to obtain needed products or services, or what "tangible" facilities or technologies the PCO is able to provide.

c. Analysis Related to Research Literature

Little research has been directed toward examining the relative importance of the dimensions of satisfaction to the customer. The only study found by the researcher which addresses this area was conducted by Zeithaml, Parasuraman, and Berry (1990). These researchers identified five service dimensions of importance to the "average" customer, ranked in the following priority order:

Reliability
Responsiveness
Assurance
Empathy
Tangibles

PM#2 considered all of these five dimensions, as well as others, to be relevant to his personal satisfaction (note that for this research effort, the dimension entitled Assurance has been renamed as Competence). PM#1 considered four of these five dimensions (the dimension entitled Reliability was deleted), as well as others, to be relevant. Therefore, it was possible to compare the Program Managers' relative importance rankings to the rankings assigned by the "average" customer in Zeithaml, Parasuraman, and Berry's study. As noted earlier, the Program Managers ranked these dimensions as follows:

DIMENSION	PM#1 RANKING	PM#2 RANKING
Responsiveness	1st	2nd
Competence	1st	2nd
Empathy	5th	5th
Tangibles	6th	7th

These rankings indicate that the relative importance rankings assigned to these dimensions during this research effort strongly concur with the ranking order determined through the previous study. This suggests that the priorities of these Program Managers are not unique, but are similar to that of an "average" customer when considering satisfaction criteria at the dimension level. However, since a number of other dimensions were also considered important to the Program Managers, these five dimensions do not fully represent all of these Program Manager's needs. Again, since a small sample size was utilized in this research effort, definitive conclusions cannot be made. Obviously, further investigation is merited.

3. Further Tailoring

The final step of Phase II involved discussions with the Program Manager to tailor three aspects of the measurement instrument to the Program Manager's unique requirements: the measurement instrument structure; the measurement schedule; and how the measurement instrument would be updated as the Program Manager's needs and expectations changed.

Tailoring the measurement instrument to the specific requirements of the individual Program Manager was recommended as an addition to the data collection process during pilot testing. The specific tailoring options included in the data collection process were identified through discussions with former Program Managers, a former PCO, and the PCO who participated in this research effort. These individuals perceived that tailoring could greatly enhance the utility of the measurement instrument to the Program Manager. Therefore, all the recommended tailoring options were included in the data collection process.

a. Results

Both Program Managers desired to have the importance weightings assigned to the respective dimensions appear on their tailored measurement instrument. They believed it useful to be reminded of the weightings they had assigned. This information would also help them to complete the measurement instrument when it was sent to them.

PM#1 desired to have the score he assigned each dimension during the preceding measurement cycle appear on the next measurement instrument. He felt that it would be useful when scoring a dimension to know the score he had previously assigned

it. By assigning a new score that was above or below the previous score given, PM#1 would be sure he was sending the "right message" to the PCO concerning her performance. PM#2 did not desire to have his previous scores shown. He felt this information might unnecessarily bias his response during the current measurement cycle.

PM#1 felt it sufficient to be able to provide written comments on the measurement instrument after each dimension of satisfaction. This would allow him to elaborate on each score given, if necessary. PM#2 desired to be able to provide written comments on the measurement instrument both after each dimension and at the end of the measurement instrument. He preferred this format so that he would be able to provide comments concerning each dimension and have additional space at the end to provide comments concerning the overall measurement program.

PM#1 and the PCO agreed upon a semi-annual measurement cycle. The measurement instrument would be sent to PM#1 in January and July. PM#2 and the PCO agreed upon an annual measurement cycle, occurring in January.

Both Program Managers desired face-to-face meetings as the method to keep the measurement instrument up-to-date. These meetings would be conducted on an annual basis in early October. This would provide a forum for the Program Manager and the PCO to discuss the Program Manager's latest requirements. October was chosen because it was considered less hectic than other times of the year.

b. Implications of Results to the Data Collection Process

The results from this step of the data collection process appear to support the adequacy of the data collection process. Both Program Managers desired to further tailor the measurement instrument to their specific desires, but requested no other

modifications other than the tailoring options provided them. This suggests that these measurement instrument tailoring options were adequate to meet the requirements of the Program Managers. All the modifications made to meet the Program Managers' desires have been incorporated into the measurement instruments shown in Appendices B and C.

c. Analysis Related to Research Literature

One of the recommended tailoring options was included in the data collection process with reservations. The researcher was concerned that by allowing the score given each dimension by the Program Manager during the previous measurement cycle to appear on the measurement instrument during the next measurement cycle, bias would be introduced into the measurement process. The question of whether to include this option in the data collection process demonstrates the dilemma which exists between theoretical research and practical application. From a theoretical standpoint, this option should be excluded because it does not strictly follow sound measurement guidelines, and potentially introduces into the process measurement bias of the type identified by Peterson and Wilson (1992). From a practical sense, this option was requested by the customer. To fully satisfy the needs of the customer, this option should be included. The researcher resolved this dilemma by deciding to err on the side of meeting the needs of the customer, and included this tailoring option in the data collection process.

D. THE INTERVIEW PROCESS

After completion of the data collection process, telephone interviews were conducted with the two Program Managers and the PCO who participated in this research effort. These interviews were conducted to identify perceived strengths and weaknesses in the data collection apparatus and data collection process.

a. Results

PM#1 believed that the data collection process also helped to improve communication between himself and the PCO. He provided two examples. First, PM#1 felt a certain frustration that all of the PCOs from this contracting office had "their own way of doing things." The contracting office did not seem to appreciate that he considered it unnecessarily burdensome to have to modify his procedures to suit the needs of each individual PCO. Therefore, through this data collection process, he was able to stress how important it was to him that all of the contracting office's PCOs should use standardized/consistent procedures to the maximum extent possible. PM#1 was pleased that the measurement instrument would enable him to indicate his dissatisfaction if consistent procedures were not utilized. Second, PM#1 felt that this contracting office overly stressed competitive contract awards rather than sole-source contract awards. His perception was that he had yet to see any real benefits from competitive awards. To him, it seemed that the low bidder was often selected for award, even during a "best value" competition. This low bidder often did not perform up to the program office's expectations. PM#1 understood the necessity to pursue competitive contract awards, but felt that he would be better served if PCOs searched for an appropriate mix of competitive and sole-source awards.

PM#1 stated "the whole thing is great!" He felt that getting together to discuss issues benefited both parties. These discussions would generate ideas for improving their relationship. He also felt that the ongoing nature of the measurement program was a great idea. According to PM#1, this program "absolutely will improve" the relationship.

PM#1 saw no significant flaws in the data collection apparatus. He felt that the apparatus was comprehensive and thorough. Concerning the data collection process, PM#1 felt that time pressures would always be a hindrance to the data collection process because discussing each attribute included in the apparatus was time intensive.

PM#2 felt that good communication already existed between the PCO and himself. Therefore, this process did not improve their communication to a great extent. However, he did feel that this process was worthwhile because it provided a forum to address areas of importance to either party.

PM#2 felt the benefit of this process was that it allowed the parties to gain an appreciation of the other party's views, which in turn would foster the creation of consensus on what actions should be taken concerning specific issues. PM#2 also felt this process was beneficial because it created a measurement instrument tailored to the acquisition process. He stated that too often questionnaires are isolated from the process they are designed to measure. This causes the survey participant to "go off on tangents" or to have to "interpret" the meaning of certain elements of the survey.

As previously stated, PM#2 considered the written guidance for completing Phase I to be confusing, and that more time should be built into the data collection process. Appendix A was subsequently revised to correct these weaknesses.

PM#2 recommended one improvement to the data collection process. He believed the data collection process should be streamlined by allowing the PCO to remove extraneous attributes from the data collection apparatus prior to sending it to the Program Manager. By trimming the lists of attributes in this manner, some of the Program Manager's time would be saved. This recommendation was not followed because it

presents the potential that the PCO could inadvertently delete attributes considered relevant by the Program Manager.

PM#2 stated, "this process was definitely worth it." He valued being able to score the less tangible aspects of his relationship with the PCO. Additionally, he felt the data collection process was valuable because it attempted to establish performance metrics for the acquisition process. PM#2 thinks that performance metrics will become a cornerstone of the acquisition process, and those organizations that do not have established performance metrics will be at a disadvantage. According to PM#2, "People who can demonstrate performance will survive."

The PCO indicated that she felt the process improved communication with both Program Managers. She felt that it gave the Program Managers a formal opportunity to air their views, concerns, etc. Also, she found it helpful that Program Managers were able to state in their own words what they thought each attribute and dimension of satisfaction meant. This provided many insights into what the Program Managers really wanted from her.

The main benefit of this process perceived by the PCO was that the customer became the focus. This focus fostered the generation of good feedback from the Program Manager. Although she felt that the time commitment was not inconsequential, she felt this process was "definitely worthwhile."

b. Implications of Results to the Data Collection Process

One significant finding from this interview process was that this method of developing a customer satisfaction measurement instrument was unanimously considered worthwhile. Although this methodology required a significant commitment of time and

energy from all of the research participants, each felt that the potential benefits to their relationship were worth the cost. Additionally, the interview process revealed several weaknesses in the data collection apparatus and process. These weaknesses were subsequently corrected.

E. CHAPTER SUMMARY

This chapter has provided the results of the data collection process. Implications of these results to the data collection process have been revealed. Additionally, these results have been analyzed in the light of the research literature concerning customer satisfaction measurement.

The data collection apparatus and data collection process were determined to be adequate in developing a customer satisfaction measurement instrument tailored to the needs of an individual Program Manager. Additionally, the satisfaction dimensions and attributes included in the apparatus were determined to be relevant and applicable to the PM - PCO relationship. Although several weaknesses in the apparatus and process were revealed, none of the weaknesses prevented the collection of all the information necessary to develop the tailored measurement instruments.

The results from this research effort revealed that, contrary to the research literature, the customers who participated in this research effort exhibited a high degree of similarity in their determination of which dimensions were relevant to their personal satisfaction, and in their assessment of the relative importance of these dimensions. Likewise, the customers exhibited significant similarity, with several notable differences, in their assessment of the relative importance of many of the attributes. The customers did, however, exhibit significant variation in their selection of attributes which describe each

dimension of satisfaction and in their performance expectations concerning each attribute, as predicted in the research literature. Unfortunately, the results obtained during this research effort were heavily influenced by two factors: the sample size was very small; and the customer participants were engaged in similar program management efforts. Therefore, it would be premature to make definitive conclusions based solely on this research effort.

The results obtained during this research effort highlight the fact that measuring customer satisfaction at the dimension level has several significant shortcomings. First, dimensions do not capture the unique perspective of the individual customer. This uniqueness emerged in the significant individual variation demonstrated by the Program Managers in identifying relevant attributes and their associated performance expectations. Second, dimension level satisfaction ratings do not reflect specific performance standards which can guide PCO action. Because individuals perceive each dimension of satisfaction differently, the PCO is not provided sufficient information to understand which activities or outcomes must be better performed to improve satisfaction. A comprehensive instrument, such as that developed in this research, that incorporates performance expectations to elaborate dimensions is required.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

This research effort provides a mechanism for achieving a clearer understanding of the customer satisfaction formation construct in the PM - PCO relationship. A methodology has been presented for developing a customer satisfaction measurement instrument tailored to meet the specific requirements of a customer Program Manager. This research effort used a qualitative case study approach to gathering and analyzing data from two Program Managers as they define the performance-based criteria for quality service from a PCO. As such, the limited sample does not support the use of inferential statistics. However, the following conclusions are supported by the data gathered:

1. The data collection apparatus and data collection process are adequate tools for developing a tailored customer satisfaction measurement instrument

The Program Managers who participated in this research effort considered the data collection apparatus to be appropriate for application to the PM - PCO relationship. The satisfaction dimensions and lists of attributes used to describe each dimension were considered to be both relevant and complete. Therefore, a Program Manager and Procuring Contracting Officer can use these tools to develop a tailored instrument for measuring a Procuring Contracting Officer's performance. Such data have the potential to improve the Procuring Contracting Officer's performance and, ultimately, the Program Manager's satisfaction with the PM - PCO relationship.

2. The measurement instrument development methodology allows the Procuring Contracting Officer to collect meaningful information

Through this methodology, the specific activities and outcomes the customer expects to receive from the relationship were identified. Additionally, insight was

provided into the Program Manager's perspective concerning the relative importance of each of these activities and outcomes in attaining his satisfaction. This provided the Procuring Contracting Officer more specific detail about "what the customer wants." With this information, the Procuring Contracting Officer can modify her performance (within the constraints of statutory boundaries) to ensure those aspects of performance most important to the Program Manager are exceptionally delivered.

3. The measurement instrument development methodology improves communication between the Program Manager and the Procuring Contracting Officer

All of the research participants were unanimous in their belief that this customer satisfaction measurement instrument development methodology has the effect of improving communication between the Program Manager and the Procuring Contracting Officer. This belief was held even when the level of communication between the two parties was already considered "good." Because this methodology brings the Program Manager and the Procuring Contracting Officer together in a face-to-face meeting, an opportunity is provided for the Procuring Contracting Officer to gain a better understanding of the Program Manager's needs and expectations. It also allows each party to gain an appreciation of the other's viewpoint, promoting consensus to be reached on what level of performance is expected by the Program Manager.

4. The customer satisfaction measurement instrument developed through this methodology will produce actionable data

The measurement instrument developed during this research effort does not attempt to measure the Program Manager's attitude. Rather, it is structured such that the Program Manager will indicate how well the Procuring Contracting Officer has performed

those activities and/or produced those outcomes which result in the Program Manager's satisfaction. Therefore, the Program Manager provides a more objective assessment of the Procuring Contracting Officer's actual performance. This allows the Procuring Contracting Officer to recognize the cause and effect relationship between her actual performance and the score given her performance by the Program Manager. In this way, the Procuring Contracting Officer has a clearer understanding of the type and level of performance that is required to increase the Program Manager's satisfaction.

5. There is consistency in the dimensions of satisfaction valued by Program Managers

The following dimensions seem to be of most importance to both Program Managers in attaining their satisfaction: Competence, Responsiveness, and Communication. These results are based on input from only two Program Managers, but the similarity of ranking of these dimensions suggests that it may be possible, with further research, to identify stable priority patterns at the dimension level. These results also suggest that, until additional empirical data are collected, it would be prudent for Procuring Contracting Officers to concentrate on improving first those aspects of their performance pertaining to these three dimensions of satisfaction.

6. Customer satisfaction measurement instruments should provide feedback at the attribute level vice the dimension level

This research has demonstrated that Program Managers define dimensions of satisfaction differently. Therefore, a dimensional satisfaction score is of little use to the Procuring Contracting Officer if she does not know which aspects of her performance have been evaluated by the Program Manager. Attribute level feedback is much more useful to the Procuring Contracting Officer. Since attributes describe very specific

activities or outcomes, the Procuring Contracting Officer gets very detailed feedback concerning which aspects of her performance have satisfied the Program Manager, and which have not.

B. RECOMMENDATIONS

Based on the results of the data collection process, several recommendations were presented in Chapter V for improving the data collection apparatus and data collection process. These recommendations should be followed when conducting the measurement instrument development methodology. The following are specific recommendations for implementing the customer satisfaction measurement program advocated in this thesis:

1. Contracting offices hould incorporate this customer satisfaction measurement system into an overall management system

Although it is crucial that organizational decision-makers continually monitor the satisfaction level of their customers, this datapoint alone does not provide all the information a decision-maker requires to manage an organization. Decision-makers require a mix of both financial and operational measures to ensure they "have their finger on the pulse of the organization." The Balanced Scorecard management system (Kaplan & Norton, 1992) satisfies this requirement because it addresses four important management perspectives (financial, internal business, learning and growth, and customer). The customer satisfaction measurement instrument advocated in this research effort could be adopted as the performance measurement instrument for the "customer" perspective because it provides accurate, relevant, and actionable customer satisfaction data. For the other three perspectives included in the Balanced Scorecard management system,

organizational decision-makers should search for effective and efficient measurement tools which can be used to assess other aspects of organizational performance.

2. The customer satisfaction scores produced with this measurement instrument should not be used to compare performance among Procuring Contracting Officers

It is important that contracting offices recognize that each PM - PCO relationship is distinguishable from all others based on the specific requirements of the acquisition program, as well as the knowledge, experience, personalities, attitudes, and biases of the individuals involved. This measurement instrument development methodology was designed to identify and embrace these unique aspects of the relationship, because they have a direct bearing on the attainment of customer satisfaction. However, since the measurement instrument is tailored to each unique relationship, the customer satisfaction scores produced with it are only relevant to that relationship. It would be inaccurate, then, to assume that because one Procuring Contracting Officer attained a higher customer satisfaction score, she provided service superior to that of another Procuring Contracting Officer who attained a lower score. As a result of the unique nature of the relationships being measured, it would be inappropriate to directly compare the satisfaction scores attained among Procuring Contracting Officers for the purposes of evaluating their overall performance. If contracting office decision-makers wish to evaluate the performance of their Procuring Contracting Officers concerning customer satisfaction, it would be more appropriate to perform trend analysis of the customer satisfaction scores attained by each Procuring Contracting Officer with this measurement instrument.

3. Do not implement this customer satisfaction measurement program unless you are committed to improving customer satisfaction

This measurement instrument development methodology requires a significant investment of time and energy from the Program Manager. The Program Manager could perceive this process to be a "waste of time" if he believed that the information collected would not be used to improve the service provided him. This could have the unintended consequence of actually decreasing the Program Manager's level of satisfaction while pursuing a process designed to increase it. Therefore, Procuring Contracting Officers should not implement this measurement instrument development methodology unless they are committed to the process and willing and able to modify their performance (within the limits of statutory boundaries) to maximize the Program Manager's satisfaction.

4. The Defense Acquisition Workforce should receive training specifically directed toward those areas considered most important in attaining customer satisfaction

This research study suggests that Program Managers highly value the satisfaction dimensions of Competence, Responsiveness, and Communication. Therefore, contracting personnel should receive training specifically directed toward these areas. The Defense Acquisition Workforce currently receives extensive training designed to increase the overall "competence" of the workforce. However, the researcher believes that current training may not give sufficient attention to improving "responsiveness" and "communication." To enhance the satisfaction of Program Managers with the service provided by contracting personnel, these areas should be incorporated into future training programs. Additionally, contracting personnel should receive extensive cross-training in program management. By actually working for a short while inside a program office,

contracting personnel may gain an appreciation and understanding of the duties, responsibilities, and tasks of program management personnel. This will allow contracting personnel to better anticipate the needs of their customer after they return to their contracting office position.

C. SUGGESTIONS FOR FURTHER RESEARCH

While pursuing this thesis, the researcher identified several aspects of customer satisfaction measurement in the acquisition process which should be further researched. These areas are:

1. Perform the measurement instrument development methodology in reverse

Because the acquisition of weapon systems is complex, program management personnel, including the PM, must be actively and continuously involved with the PCO throughout the acquisition process. In fact, the quality of the assistance and input provided to the PCO by program management personnel can have a significant impact on the quality of the contracting services provided to the program office. Therefore, it would be appropriate to perform customer satisfaction measurement in reverse. Research could be conducted to determine what assistance and input a PCO believes a program office (or a Program Manager) must deliver to be considered a "good" customer. A measurement instrument could then be designed for measuring the PCO's satisfaction with his relationship with the Program Manager/program office.

2. Incorporate defense contractors into the customer satisfaction measurement process

There is another key stakeholder in the PM - PCO relationship, the defense contractor. In many ways, the defense contractor can be considered both a customer of

and supplier to both the program office and the contracting office. Therefore, customer satisfaction measurement instruments could be designed to measure satisfaction in both the program office - defense contractor relationship and the contracting office - defense contractor relationship.

3. Validate the results obtained during this research effort

Since a very small sample of Program Managers participated in this research effort, the obtained results have no statistical significance. To validate the obtained results, the data collection process must be conducted with a greater number of Program Managers. A follow-on study could attempt to determine if different results are obtained from different types of Program Managers or different types of program management situations (i.e., phase of the acquisition process; type of product or service being acquired; Acquisition Category (ACAT) level of program; experience of Program Manager; branch of service (if Program Manager is military); parent command of program office).

4. Perform a comprehensive review of customer satisfaction measurement programs

A comprehensive review could be conducted concerning how customer satisfaction is currently measured in both the private and public sectors. This review could attempt to determine if there are fundamental differences between the two sectors, and how this ultimately affects customer satisfaction in the contracting process.

5. Conduct Research to explore the consistency of importance ratings at the dimension level

This research effort has demonstrated that some dimensions of satisfaction were consistently rated as most important in attaining a Program Manager's personal satisfaction. However, these results were based on a very small sample of Program

Managers. A follow-on research effort could sample a larger pool of Program Managers to determine the degree of stability of the dimensional importance ratings identified in this research effort.

6. Conduct a systematic evaluation of the training provided contracting personnel

Research could be conducted to analyze the curricula included in training/ education programs provided the Defense Acquisition Workforce to systematically evaluate how well the Program Managers' performance criteria are addressed.

APPENDIX A

INSTRUCTIONS TO PROGRAM MANAGERS

From: Procuring Contracting Officer Date
To: Program Manager

Subj: REQUEST FOR ASSISTANCE TO DEVELOP A TAILORED CUSTOMER SATISFACTION MEASUREMENT INSTRUMENT

Encl: (1) Instructions to Program Managers
(2) Generic "Menu" of Customer Satisfaction Dimensions and Attributes

1. The (Organization Name) is establishing a customer satisfaction measurement program to assess the satisfaction level of supported Program Managers. The intent of this program is to establish a measurement instrument tailored for each individual Program Manager. Your assistance is requested to collect the data necessary to develop a measurement instrument tailored especially for you.

2. The data collection process will be conducted in two phases. The first phase involves the completion of several preliminary steps by you as outlined in enclosures (1) and (2). Enclosure (1) provides detailed instructions for completing the preliminary steps, while enclosure (2) provides the baseline document, which you will modify as the preliminary steps are completed. The second phase of the data collection process will be completed as a joint effort between us during a face-to-face meeting. This meeting will be scheduled after you have completed the preliminary steps discussed in enclosure (1) and returned enclosure (2).

3. This customer satisfaction measurement program is unique in several ways. First, it recognizes that each Program Manager - Procuring Contracting Officer relationship is distinguishable from all others based on the specific requirements of the program, as well as the knowledge, experience, personalities, and attitudes of the individuals involved. Therefore, effective customer satisfaction measurement demands that each relationship be uniquely measured. Second, our measurement instrument does not attempt to measure an attitude (Are you satisfied?), but rather how well those behaviors and activities which result in your satisfaction have been performed. In this way, the measurement instrument provides actionable data, pinpointing exactly which aspects of performance require improvement. Third, your performance expectations form the basis against which actual performance is measured. By identifying the deficiencies between your expectations and my performance, meaningful information is obtained. This information can then be utilized to improve the service provided you.

4. It is my firm belief that the time you invest in helping to establish this new customer satisfaction measurement program will be well-rewarded. This program will allow insight to be gained into what drives your personal satisfaction. With this knowledge, I can focus improvement efforts on those areas of most importance to you, my valued customer.

Very Respectfully,

INSTRUCTIONS TO PROGRAM MANAGERS

1. Enclosure (2) provides a menu of customer satisfaction dimensions and attributes which describe each dimension. From this menu, you will be able to quickly identify those dimensions and attributes that drive your personal satisfaction with the contracting services we provide. Customer satisfaction "dimensions" are broad factors researchers have determined to have an impact on the satisfaction formation process. The dimensions included in this menu were identified through a review of customer satisfaction literature and interviews with Program Managers and Procuring Contracting Officers. Satisfaction dimensions appear in bold typeface in enclosure (2).

2. "Attributes" are short phrases, or "bullets" used to more accurately describe each dimension of customer satisfaction. The attributes included in enclosure (2) were identified through an analysis of current customer satisfaction survey documents, as well as interviews with Program Managers and Procuring Contracting Officers. Together, these dimensions and attributes represent a generic menu of factors which could potentially have an affect on <u>any</u> Program Manager's personal satisfaction.

3. The data collection process is designed to transform this generic menu into a tailored set of dimensions and attributes which are both relevant and important to <u>your</u> personal satisfaction. The goals of this process are to:

   (a) identify which satisfaction dimensions and attributes you consider relevant to your personal satisfaction with the contracting service we provide;
   (b) ascertain your expectations of performance concerning the relevant attributes. (Your expectations will form the baseline against which our actual performance will be measured);
   (c) determine the relative importance of the attributes used to describe each dimension to you; and
   (d) determine the relative importance of each satisfaction dimension to you.

4. The following steps constitute Phase I of the data collection process:

   (a) Review enclosure (2), noting any attributes or dimensions which you consider to have little affect on your personal satisfaction. Draw a line through these attributes or dimensions. For example, if none of the attributes under the dimension entitled "Tangibles" are relevant to your personal satisfaction, then delete the entire dimension, including its attributes. However, if you consider some attributes under a dimension to be relevant, these attributes should be moved to another dimension before deleting the dimension, or the dimension should remain. Write the title of the dimension the attribute should be moved to on enclosure (2). The goal of this step is to eliminate dimensions and attributes that are irrelevant to you.
   (b) If considered appropriate, combine multiple dimensions into one overall dimension, or reassign attributes to different dimensions. For example, you may decide to combine several dimensions to generate one overall dimension more applicable to your personal satisfaction. When dimensions are combined,

all of the associated attributes not previously deleted are also combined beneath the overall dimension. Another possibility is to combine attributes from several dimensions beneath an entirely new dimension. Through this process, Program Managers have reduced the original list of sixteen dimensions to as few as four dimensions, but there is not one "correct" number. The goal of this step is to produce a concise list of dimensions (and associated attributes) you consider logical and appropriate for describing your personal satisfaction.

(c) Review each list of attributes which describe the dimensions included in the menu. If you believe a list of attributes describing a particular dimension to be deficient in any way, add appropriate attributes to that list. The space entitled "Additional attributes?" beneath each dimension has been provided for this purpose. The goal of this step is to ensure each list of attributes is accurate and complete.

(d) Consider whether a more meaningful title should be assigned to any of the relevant dimensions. For example, if you prefer the title "Timeliness" rather than "Responsiveness", make the necessary annotation on enclosure (2). The goal of this step is to assign a title you deem appropriate to each dimension.

(e) Rank the attributes beneath each dimension according to their perceived importance to you within that dimension. The small line to the left of each dimension is provided for this purpose. The goal of this step is to determine the degree to which each attribute affects your satisfaction.

(f) Upon completion of the above steps, return enclosure (2) with your revisions to (Organization Name). The revised enclosure (2) will be utilized during our face-to-face meeting to accomplish Phase II of the data collection process.

5. So that you may begin to formulate your input into the remainder of the data collection process, the steps that will be completed during phase II are provided, as follows:

(a) Each attribute which remains in enclosure (2) after phase I will be modified to incorporate <u>your specific expectations of performance</u>. By determining your expectations of performance, insight is gained into what level of performance must be delivered to ensure your satisfaction. The final satisfaction measurement instrument will allow you to indicate the degree to which our actual performance has met your performance expectations.

(b) After all the attributes describing a dimension have been modified to incorporate your performance expectations, you may desire to rerank the attributes according to their relative importance.

(c) "Importance" points will be assigned to each dimension which remains after phase I. A total of one hundred points will be spread among the relevant dimensions based on each dimension's relative importance to your personal satisfaction. By determining the relative importance of each dimension to you, insight is gained into whether any particular aspect of our performance should be given special attention. Another benefit of assigning these "importance" points is that it allows the measurement instrument to calculate a numerical "score" for customer satisfaction.

(d) The measurement instrument may be structured in several ways. Your opinion will be obtained concerning which structure you prefer for your tailored instrument. Additionally, we will agree on a schedule for when your satisfaction will be measured, and how the measurement instrument will be kept up-to-date as your needs and expectations change.

GENERIC "MENU" OF CUSTOMER SATISFACTION DIMENSIONS AND ATTRIBUTES

Availability

_____ Contracting office has adequate hours of operation
_____ Contracting office physically located close to program office
_____ Assists program office personnel seeking help
_____ Number of contracting personnel commensurate with workload
_____ Provides adequate level of attention to program office
_____ Contracting support continues when PCO absent (leave, TDY, etc.)
_____ Additional attributes?

Responsiveness

_____ Returns phone calls promptly
_____ Produces required correspondence promptly
_____ Negotiates Undefinitized Contract Actions promptly
_____ Executes Delivery Orders promptly
_____ Executes crucial program documentation (APs, J&As, SSPs) promptly
_____ Negotiates contract modifications promptly
_____ Notifies program office promptly when major delays occur during negotiations
_____ Notifies PM promptly when PM involvement required to resolve a "roadblock"
_____ Additional attributes?

Quality of Delivery

_____ Competition sought to maximum extent
_____ Follows procurement regulations
_____ Uses consistent/standardized procedures and processes
_____ Provides a single point of contact for resolution of issues
_____ Additional attributes?

Product Quality

_____ Contracts/modifications contain all required clauses
_____ Contracts awarded to experienced company
_____ Contracts awarded to competent company
_____ No major mistakes in contracts/modifications
_____ Contracts/modifications structured to meet program requirements
_____ Contract/modification structured to avoid unnecessary contract management
_____ Contracts/modifications promote effective management of contract costs
_____ Contracts/modifications do not incorporate unnecessary CDRLs
_____ Contracts/modifications require a minimum of paper deliverables
_____ RFPs address life cycle costs
_____ Additional attributes?

Price

_____ Contracts/modifications awarded for a fair and reasonable price
_____ Contracts/modifications awarded under "best value" criteria
_____ Additional attributes?

Performance and Service

_____ Attends all key program meetings
_____ Meets deadlines (urgent through routine)
_____ Completes contract awards/modifications on schedule
_____ Tracks contract performance
_____ Maintains contract file properly
_____ Additional attributes?

Tangibles

_____ Contracting office appears clean and organized
_____ Contracting office has compatible computer technology
_____ Contracting office effectively utilizes telecommunication (video-conferencing, e-mail)
_____ Contracting personnel appear neat and professional
_____ Additional attributes?

Empathy

_____ Considers the impact of late or inaccurate products or services
_____ Considers the needs of the program office
_____ Considers program office's best interests in decision-making
_____ Considers program offices's contract vehicle preference
_____ Consistently friendly and courteous
_____ Additional attributes?

Reliability

_____ Service right the first time
_____ Keeps promises
_____ Additional attributes?

Communication

_____ Communicates in easily understood terms/language
_____ Explains complex contracting issues
_____ Answers program office questions
_____ Answers external stakeholder questions
_____ Explains limitations and possibilities of potential contract vehicles
_____ Promulgates new developments in procurement policy
_____ Explains to functional personnel what is needed from them to perform the contracting function
_____ Intervenes when necessary with functional experts (DCMC, Legal, etc.) to resolve disputes without need for PM involvement
_____ Additional attributes?

Competence

_____ Intimately familiar with a program's contracts
_____ Understands the program Acquisition Strategy
_____ Understands the basics of the technology being procured
_____ Expert in proper SOW and specification formats
_____ Well-versed in broad range of contracting subject areas
_____ Keeps abreast of latest developments in acquisition
_____ Provides accurate and reliable information
_____ Understands advantages and disadvantages of every contract vehicle
_____ Additional attributes?

Innovativeness

_____ Achieves program office objectives while operating within procurement process constraints

_____ Eliminates unnecessary/non value-added steps in the procurement process

_____ Develops creative contracting solutions to problems

_____ Designs contracts that provide flexibility to the program

_____ Reduces overall risk to the program

_____ Reduces procurement lead time

_____ Additional attributes?

Flexibility

_____ Responds easily to changes in program requirements

_____ Considers all possibilities for meeting program office needs

_____ More concerned with what can be legally accomplished than what law prevents

_____ Generates options quickly to resolve program problems

_____ Has a "Can Do" attitude

_____ Additional attributes?

Team Work

_____ Has a "systems" perspective not just a "contracting" perspective

_____ Works with and delegates appropriate functions to DCMC personnel

_____ Teaches and coaches junior personnel

_____ Discusses contract/modifications changes with program office personnel

_____ Provides status to program office during the procurement process

_____ Additional attributes?

Professionalism

_____ Acts in an ethical manner
_____ Well-trained and experienced in the contracting process
_____ Empowered to accomplish assigned tasks
_____ Adheres to program schedules
_____ Establishes processes/procedures that achieve superior results
_____ Knows how to prioritize workload without direction from PM
_____ Coordinates and follows-up on assigned tasks/projects
_____ Liaisons effectively between program office and other functional organizations in clarifying issues, resolving concerns, etc.
_____ Additional attributes?

Negotiation Skills

_____ Concludes negotiations on time to meet contract/modification award date
_____ Negotiates a "best deal" for the Government
_____ Negotiates a "fair deal" for the Government and the contractor
_____ Negotiates a "win - win" agreement
_____ Promotes settlement (does not get personal or defensive)
_____ Influences contractor to resolve disputes quickly (resoluteness of purpose)
_____ Understands negotiation "must haves" versus "should haves"
_____ Motivates performance from contractors
_____ Additional attributes?

APPENDIX B

TAILORED MEASUREMENT INSTRUMENT FOR PM #1

CUSTOMER SATISFACTION METRIC TAILORED SPECIFICALLY FOR:

This instrument measures fourteen dimensions of customer satisfaction and their relative importance out of a total of 100 points, as follows:

Responsiveness	(10 points)
Competence	(10 points)
Communication	(9 points)
Negotiation Skills	(8 points)
Availability	(8 points)
Consistency of Service	(8 points)
Product Quality	(7 points)
Innovativeness	(7 points)
Flexibility	(7 points)
Professionalism	(6 points)
Team Work	(6 points)
Performance and Service	(5 points)
Tangibles	(5 points)
Price	(4 points)

This measurement instrument will be mailed to you semi-annually (January/July)

We will meet annually in early October to recalibrate this measurement instrument

NOTE: SCORES GIVEN DURING PREVIOUS MEASUREMENT CYCLES WILL APPEAR IN BOLD ON EACH 20-POINT RATING SCALE

INSTRUCTIONS TO THE CUSTOMER

The following procedure is recommended for completing this measurement instrument:

1. **Score** each dimension of satisfaction by circling the appropriate number on the 20-point rating scale provided for each dimension. The number circled should correspond with your assessment of how our actual performance correlates to your expectations of performance for the dimension. The rating scale range is from positive 10 (indicating our actual performance always exceeds your expectations) to negative 10 (indicating our actual performance never meets your expectations).

2. **Annotate** the list of attributes under each dimension. This will help us to better understand your rationale for the score given each dimension. You have three options for marking an attribute:

-Mark a "+" on the line provided next to each attribute if our actual performance concerning the attribute has exceeded your expectations.

-Mark a "-" on the line provided next to each attribute if our actual performance concerning the attribute has not met your expectations.

-Do not mark those attributes in which our actual performance has met your expectations.

3. **Modify** the measurement instrument as necessary. This will ensure the measurement instrument continues to accurately reflect your needs and expectations. You may modify the instrument in the following ways:

-Adjust the importance weightings assigned to dimensions. On the cover sheet provided, cross out the current weighting assigned to a dimension and indicate the revised weighting. Please note that after all adjustments, the points assigned all dimensions must equal 100.

-Create new attributes for dimensions and add them in the space entitled "Additional Attributes?".

-Delete attributes considered no longer relevant by crossing them out.

Consistency of Service (8 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time									Always Meets									Exceeds 50% of time									Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10													

_____ Consistent/standardized procedures and processes used among all negotiators

_____ The negotiator is the single point of contact for resolution of issues

_____ Follows procurement regulations while expediting actions

_____ Appropriate mix of competitive and sole source contracts sought

_____ Additional attributes?

Comments _____

_____

_____

Product Quality (7 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time									Always Meets									Exceeds 50% of time									Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10													

_____ Contract/modification structured to meet program and funding requirements

_____ Contract/modification structured to avoid unnecessary contract management (i.e., materials/equipment)

_____ Contracts awarded to competent company

_____ Contracts awarded to experienced company

_____ Additional attributes?

Comments _____

_____

_____

Availability (8 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

_____ Number of contracting personnel commensurate with workload

_____ Contracting support continues when PCO absent (leave, TDY, etc.)

_____ Contracting office physically located close to program office

_____ Additional attributes?

Comments _____

_____

_____

Responsiveness (10 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

_____ Assists COR whenever needed

_____ Notifies same day when COR involvement required to resolve a "roadblock"

_____ Executes Task Orders within 14 working days

_____ Executes DD 254s on time to meet Task Order authorization date

_____ Executes J&As on time to support contract ceiling increases

_____ Executes APs and SSPs to meet contract award

_____ Notifies COR same day when major delays occur during negotiations

_____ Returns phone calls same day

_____ Additional attributes?

Comments _____

_____

_____

Competence (10 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Keeps abreast of latest developments in acquisition

_____ Intimately familiar with a program's contracts

_____ Understands limitations and possibilities of each contract vehicle

_____ Well-versed in broad range of contracting subject areas

_____ Expert in SOW and specification formats

_____ Additional attributes?

Comments _____

_____

_____

Flexibility (7 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Has a "Can Do" attitude

_____ More concerned with what can be legally accomplished than what law prevents

_____ Considers all possibilities for meeting COR needs

_____ Generates options quickly to resolve program problems to avoid adverse impact on program

_____ Additional attributes?

Comments _____

_____

_____

Communication (9 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time						Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Explains limitations and possibilities of potential contract vehicles

_____ Promulgates new developments in procurement policy

_____ Explains what is needed from COR to perform the contracting function

_____ Intervenes when necessary with functional experts (ACO, Legal, etc.) to resolve disputes without need for COR involvement

_____ Answers COR questions

_____ Answers questions from sponsor, contractor, etc.

_____ Additional attributes?

Comments _____

_____

_____

Performance and Service (5 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time						Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Meets urgent deadlines

_____ Completes contract awards/modifications on schedule

_____ Attends all key program meetings

_____ Additional attributes?

Comments _____

_____

_____

Innovativeness (7 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time								Always Meets	Exceeds 50% of time								Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Achieves COR objectives while operating within procurement process constraints

_____ Eliminates unnecessary/non value-added steps in the procurement process

_____ Reduces procurement lead time

_____ Develops creative contracting solutions to problems

_____ Designs contracts that provide flexibility to the program

_____ Reduces overall risk to the program (i.e., funding committed prior to expiration, advanced Task Order PR processing)

_____ Additional attributes?

Comments _____

_____

_____

Tangibles (5 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time								Always Meets	Exceeds 50% of time								Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Contracting office effectively utilizes telecommunication (video-conferencing, e-mail)

_____ Contracting office has compatible computer technology/software

_____ Additional attributes?

Comments _____

_____

_____

Negotiation Skills (8 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Concludes negotiations on time to meet contract/modification award date

_____ Negotiates a "fair deal" for the Government and the contractor

_____ Negotiates a "win - win" agreement

_____ Motivates performance from contractors

_____ Understands negotiation "must haves" versus "should haves"

_____ Promotes settlement (does not get personal or defensive)

_____ Influences contractor to resolve disputes quickly to avoid adverse impact to program (resoluteness of purpose)

_____ Negotiates a "best deal" for the Government

_____ Additional attributes?

Comments _____

_____

_____

Price (4 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Contract/modification awarded under "best value" criteria

_____ Additional attributes?

Comments _____

_____

_____

Team Work (6 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets / Always Meets / Meets 50% of time / Exceeds 50% of time / Always Exceeds

(Mark "+", "-", or leave blank)

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 7 8 9 10

_____ Has a "Big Picture" perspective not just a "contracting" perspective

_____ Provides daily status electronically to COR during the procurement process

_____ Works with and delegates functions to appropriate personnel

_____ Teaches and coaches junior personnel

_____ Additional attributes?

Comments _____

_____

_____

Professionalism (6 of 100 points)

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets / Always Meets / Meets 50% of time / Exceeds 50% of time / Always Exceeds

(Mark "+", "-", or leave blank)

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 7 8 9 10

_____ Considers the needs of the COR

_____ Considers COR's best interests in decision-making

_____ Considers the impact of late or inaccurate products or services

_____ Understands the basics of the technology being procured

_____ Consistently friendly and courteous

_____ Additional attributes?

Comments _____

_____

_____

APPENDIX C

TAILORED MEASUREMENT INSTRUMENT FOR PM #2

CUSTOMER SATISFACTION METRIC TAILORED SPECIFICALLY FOR:

This instrument measures sixteen dimensions of customer satisfaction and their relative importance out of a total of 100 points, as follows:

Performance and Service	(10 points)
Availability	(9 points)
Responsiveness	(9 points)
Competence	(9 points)
Reliability	(7 points)
Communication	(7 points)
Innovativeness	(7 points)
Flexibility	(7 points)
Product Quality	(6 points)
Team Work	(6 points)
Empathy	(5 points)
Professionalism	(5 points)
Quality of Delivery	(4 points)
Negotiation Skills	(3 points)
Price	(3 points)
Tangibles	(3 points)

This measurement instrument will be mailed to you annually in the first week of January.

We will meet annually in early October to recalibrate this measurement instrument.

INSTRUCTIONS TO THE CUSTOMER

The following procedure is recommended for completing this measurement instrument:

1. **Score** each dimension of satisfaction by circling the appropriate number on the 20-point rating scale provided for each dimension. The number circled should correspond with your assessment of how our actual performance correlates to your expectations of performance for the dimension. The rating scale range is from positive 10 (indicating our actual performance always exceeds your expectations) to negative 10 (indicating our actual performance never meets your expectations).

2. **Annotate** the list of attributes under each dimension. This will help us to better understand your rationale for the score given each dimension. You have three options for marking an attribute:

   -Mark a "+" on the line provided next to each attribute if our actual performance concerning the attribute has exceeded your expectations.

   -Mark a "-" on the line provided next to each attribute if our actual performance concerning the attribute has not met your expectations.

   -Do not mark those attributes in which our actual performance has met your expectations.

3. **Modify** the measurement instrument as necessary. This will ensure the measurement instrument continues to accurately reflect your needs and expectations. You may modify the instrument in the following ways:

   -Adjust the importance weightings assigned to dimensions. On the cover sheet provided, cross out the current weighting assigned to a dimension and indicate the revised weighting. Please note that after all adjustments, the points assigned all dimensions must equal 100.

   -Create new attributes for dimensions and add them in the space entitled "Additional attributes?".

   -Delete attributes considered no longer relevant by crossing them out.

Reliability (7 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Service right the first time

_____ Keeps promises

_____ Additional attributes?

Comments _____

_____

_____

Responsiveness (9 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Negotiates all task orders and contract modifications within 14 working days

_____ Provides a single point of contact for resolution of issues

_____ Returns phone calls within a half day

_____ Notifies program office same day when major delays occur during negotiations

_____ Notifies program office same day when PM involvement required to resolve a "roadblock"

_____ Authorizes incremental funding within 3 days (West Coast)

_____ Authorizes incremental funding within 3 days (East Coast)

_____ Executes crucial program documentation (APs, J&As, SSPs) promptly (West Coast

_____ Executes crucial program documentation (Aps, J&As, SSPs) promptly (East Coast)

_____ Additional attributes?

Comments _____

_____

_____

Tangibles (3 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Contracting office has compatible computer technology

_____ Contracting office effectively utilizes telecommunication

_____ Contracting personnel appear neat and professional

_____ Additional attributes?

Comments _____

_____

_____

Availability (9 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Assists program office personnel seeking help

_____ Contracting support continues when PCO absent (leave, TDY, etc.)

_____ Support continues when Financial personnel absent (leave TDY, etc.)

_____ Support continues when Security personnel absent (leave, TDY, etc.)

_____ Contracting office has adequate hours of operation

_____ Contracting office physically located close to program office

_____ Additional attributes?

Comments _____

_____

_____

Product Quality (6 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ No major mistakes in contracts/modifications

_____ Contract/modification structured to meet program requirements

_____ Contract/modification structured to avoid unnecessary contract management

_____ Contract/modification promotes effective management of contract costs

_____ Contracts awarded to competent company

_____ Contracts awarded to experienced company

_____ Contract/modification does not incorporate unnecessary CDRLs

_____ Additional attributes?

Comments _____

_____

_____

Performance and Service (10 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Security personnel meet deadlines (urgent through routine)

_____ Meets incremental funding deadlines (urgent through routine)

_____ Completes contract awards/modifications on schedule

_____ Maintains contract file up-to-date and at fingertips (West Coast)

_____ Maintains contract file up-to-date and at fingertips (East Coast)

_____ Additional attributes?

Comments _____

_____

_____

Price (3 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

	Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

_____ Contract/modification awarded for a fair and reasonable price

_____ Contract/modification awarded under "best value" criteria

_____ Maintains awareness of rate changes and notifies COR

_____ Additional attributes?

Comments _____

_____

_____

Empathy (5 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

	Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

_____ Considers customer's best interests in decision-making

_____ Considers the needs of the COR

_____ Considers the impact of late or innaccurate products or services

_____ Consistently friendly and courteous

_____ Considers COR's contract vehicle preference

_____ Additional attributes?

Comments _____

_____

_____

Competence (9 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time				Always Meets				Exceeds 50% of time								Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Provides accurate and reliable information

_____ Keeps abreast of latest development in acquisition

_____ Well-versed in broad range of contracting process subject areas

_____ Understands limitations/ possibilities of each basic contract and task order vehicle

_____ Additional attributes?

Comments _____

_____

_____

Innovativeness (7 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets				Meets 50% of time				Always Meets				Exceeds 50% of time								Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Achieves program office objectives while operating within procurement process constraints

_____ Eliminates unnecessary/non value-added steps in the procurement process

_____ Reduces overall risk to the program with respect to funds obligation and schedule

_____ Develops creative contracting solutions to problems

_____ Designs contracts that provide flexibility to the program

_____ Additional attributes?

Comments _____

_____

_____

Team Work (6 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Discusses contract/modification changes with program office personnel

_____ Provides status to program office during the basic procurement and task order process

_____ Has a "Big Picture" perspective not just a "contracting rules" perspective

_____ Additional attributes?

Comments _____

_____

_____

Professionalism (5 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Empowered to accomplish assigned tasks

_____ Liaisons effectively between program office and other functional organizations in clarifying issues, resolving concerns, etc.

_____ Well-trained and experienced in the contracting process

_____ Adheres to program schedules

_____ Establishes processes/procedures that achieve superior results

_____ Acts in an ethical manner

_____ Additional attributes?

Comments _____

_____

_____

Flexibility (7 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Has a "Can Do" attitude

_____ More concerned with what can be legally accomplished than what law prevents

_____ Responds easily to changes in program requirements

_____ Considers all possibilities for meeting program office needs

_____ Generates options quickly to resolve program problems

_____ Additional attributes?

Comments _____

_____

_____

Negotiation Skills (3 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Concludes negotiations on time to meet contract/modification award date

_____ Motivates performance from contractors

_____ Negotiates a "win-win" agreement for both the Government and the contractor

_____ Understands negotiation "must haves" versus "should haves"

_____ Promotes settlement (does not get personal or defensive)

_____ Influences contractor to resolve disputes quickly (resoluteness of purpose)

_____ Additional attributes?

Comments _____

_____

_____

Quality of Delivery (4 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

	Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

_____ Follows procurement regulations

_____ Uses consistent/standardized procedures and processes (West Coast)

_____ Uses consistent/standardized procedures and processes (East Coast)

_____ Additional attributes?

Comments _____

_____

_____

Communication (7 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

	Never Meets				Meets 50% of time					Always Meets				Exceeds 50% of time					Always Exceeds
(Mark "+", "-", or leave blank)	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

_____ Answers program office questions

_____ Promulgates new developments in procurement policy and ties new requirements to the original source (i.e., FAR, public law, NAVINST)

_____ Explains to functional personnel what is needed from them to perform the contracting function

_____ Communicates in easily understood terms/language

_____ Intervenes when necessary with functional experts (DCMC,Legal, etc.) to resolve disputes without need for PM involvement

_____ Explains limitations and possibilities of potential contract vehicles

_____ Additional attributes?

Comments _____

_____

_____

COMMENTS

APPENDIX D

INSTRUCTIONS TO PROCURING CONTRACTING OFFICERS

CUSTOMER SATISFACTION MEASUREMENT INSTRUMENT DEVELOPMENT PROGRAM

THIS PACKAGE CONTAINS:

1. **Instructions to Procuring Contracting Officers for instituting the Customer Satisfaction Measurement Instrument Development Program.**
2. **Example Customer Satisfaction Measurement Instrument Pages**
3. **Instructions to the Program Manager for completing Phase I of the data collection process.**

INSTRUCTIONS TO PROCURING CONTRACTING OFFICERS FOR INSTITUTING THE CUSTOMER SATISFACTION MEASUREMENT INSTRUMENT DEVELOPMENT PROGRAM

A. INTRODUCTION

This customer satisfaction measurement program is designed to assist Procuring Contracting Officers to measure the satisfaction level of supported Program Managers while producing meaningful, actionable satisfaction data. This program is unique in several ways. First, it recognizes that each Program Manager-Procuring Contracting Officer relationship is distinct, which requires that the measurement instrument be tailored to the needs of each individual relationship. Second, it does not attempt to measure the Program Manager's attitude, but rather how well the Procuring Contracting Officer has performed those behaviors and activities which result in the Program Manager's satisfaction. Third, the performance expectations of the Program Manager form the basis against which the Procuring Contracting Officer's performance is measured.

This program requires specific data to be collected from the Program Manager in two phases. Phase I involves the completion of several steps solely by the Program Manager. Phase II is conducted as a joint effort between the Program Manager and the Procuring Contracting Officer.

This guidance should be read in conjunction with the written guidance entitled "Instructions to Program Managers."

B. OVERVIEW OF THE DATA COLLECTION PROCESS

The data collection process begins by conducting a meeting with the Program Manager to introduce the customer satisfaction measurement program and to discuss the phase I requirements. This meeting can be conducted in conjunction with another regularly scheduled meeting. The goal of this meeting is to ensure the Program Manager is provided adequate information to properly complete phase I. Therefore, Procuring Contracting Officers should select a time to perform the data collection process when the Program Manager is able to devote his full attention to this process.

At least one week should be provided the Program Manager to complete phase I. This will provide the Program Manager with adequate time to consider what modifications he would like to make to enclosure (2). By providing the time necessary to properly complete Phase I, the Program Manager will produce a better product.

After the Program Manager has completed phase I and returned enclosure (2), it should be updated as soon as possible. A Phase II meeting should be scheduled approximately one week after receipt of enclosure (2) from the Program Manager. This timeframe is highly recommended. Conducting phase II too soon after completion of phase I does not provide the Program Manager with adequate time to contemplate the modifications he would like to implement during phase II. Conducting phase II too long after phase I may allow the Program Manager to forget what modifications were already made, causing disruption to the data collection process. Elaboration is provided below concerning each step of the complete data collection process. Additionally, examples are provided of a measurement instrument cover sheet, instructions to the customer, survey pages, and a comment page.

C. CONDUCTING PHASE I OF THE DATA COLLECTION PROCESS

Written guidance has been developed to assist the Program Manager to perform phase I of the data collection process. This guidance (entitled "Instructions to Program Managers") consists of a cover letter, and two enclosures. Enclosure (1) provides detailed instructions for completing phase I, while enclosure (2) provides the baseline data collection document. This guidance is presented to the Program Manager to begin the data collection process.

Procuring Contracting Officers should not rely solely on the written guidance to guide Program Managers through phase I of the data collection process, but should also discuss with the Program Manager the specific steps to be completed. By supporting the written guidance in this way, the Procuring Contracting Officer can be more confident the Program Manager understands what is required during phase I.

The data collection process should be conducted in a unhurried, deliberate manner with adequate interaction between the Procuring Contracting Officer and the Program Manager. Although it may be more efficient to conduct phase II immediately after completing phase I, this is not recommended. Combining the two data collection phases will result in a sub-optimized measurement instrument. Pilot testing has revealed that, typically, Program Managers do not modify the baseline data collection document to a great extent during their first exposure to the data collection process. However, as the data collection process progresses, Program Managers perform more extensive modifications to incorporate their personal requirements. It is not uncommon for Program Managers to continue to modify the data collection apparatus during Phase II.

D. UPDATING THE BASELINE DATA COLLECTION DOCUMENT

The final step of phase I directs the Program Manager to return enclosure (2) of the written guidance to the Procuring Contracting Officer. Upon receipt, enclosure (2) is updated by the Procuring Contracting Officer to reflect the Program Manager's desired modifications. To update enclosure (2), the following actions are performed:

1. Delete the dimensions and attributes which have been crossed out by the Program Manager.
2. Incorporate the dimensions and attributes which have been added by the Program Manager.
3. Move attributes as directed by the Program Manager.
4. Rename dimensions as directed by the Program Manager.
5. Reorder the attributes listed under each dimensiont. Place the attribute ranked highest by the Program Manager at the top of the list of attributes; the second highest ranked attribute should be placed next, and so on. By arranging the attributes under each dimension in this manner, a visual indicator of the importance of each attribute is provided.

E. CONDUCTING PHASE II OF THE DATA COLLECTION PROCESS

The updated version of enclosure (2) is utilized to conduct phase II of the data collection process. Phase II is conducted during a face-to-face meeting between the

Procuring Contracting Officer and the Program Manager. During this meeting, the following data are collected:

1. Determine the Program Manager's specific expectations of performance for the attributes listed under each dimension of satisfaction. This provides insight into what level of performance is expected by the Program Manager. Every attribute does not need to be modified. Some attributes may already be worded such that they reflect the Program Manager's performance expectations. Other attributes will need to be modified. For example, the attribute "Returns phone calls promptly" may be modified to "Returns phone calls within one day" to reflect the Program Manager's expectations of performance for that attribute.
2. After determining performance expectations for each dimension listed below a dimension, ask the Program Manager whether they desire to rerank the attributes. This may be necessary because the previous step (identifying performance expectations) may have altered the Program Manager's perception of the relative importance of some of the attributes.
3. Identify the relative importance of each dimension of satisfaction to the Program Manager. This is accomplished through the use of "importance" points. The Program Manager is requested to assign importance points to each dimension based on its perceived relative importance to his overall satisfaction. The Program Manager is allowed only one hundred total importance points with which to weight all of the dimensions.

F. FURTHER TAILORING

The final step of phase II involves tailoring three aspects of the measurement program to the Program Manager's requirements: the measurement instrument structure; the measurement schedule; and how the measurement instrument would be updated as the Program Manager's needs and expectations change. This tailoring process is recommended because Program Managers exhibited a significant amount of variation in their requirements concerning these aspects of the measurement program during pilot testing. Although this tailoring process is not critical to the program's overall success, by providing the Program Manager the opportunity to tailor these aspects of the measurement program, the usefulness of the overall program to the Program Manager will be increased. Five questions are asked of the Program Manager, as follows:

1. Do you desire to have the importance weightings assigned to each dimension appear on the measurement instrument?
2. Do you desire to have the score you gave each dimension during the preceding measurement cycle appear on the next measurement instrument?
3. Would you like to provide written comments about our performance on the final measurement instrument? Comments can be provided after each dimension, at the end of the measurement instrument, or both?
4. When should the measurement instrument be sent to you? The periodicity with which the Program Manager's satisfaction is measured should be a point of mutual agreement. The periodicity agreed to should balance the Program Manager's desire to not be burdened by over-frequent measurement and the

Procuring Contracting Officer's desire to gain meaningful information on a timely basis.

5. How would you like to keep this measurement instrument up-to-date as your needs and expectations change? Two options for keeping the measurement instrument current are for the Program Manager to modify and update the measurement instrument during each measurement cycle, or to schedule a face-to-face meeting between the Program Manager and the Procuring Contracting Officer after the passage of a specific period of time.

G. DEVELOPING THE MEASUREMENT INSTRUMENT

The measurement instrument is developed in the following manner:

1. Each attribute is modified to reflect the Program Manager's expectations of performance. These modified attributes are incorporated into the instrument.
2. If the Program Manager desires to have each dimension's importance weighting appear on the measurement instrument, place the phrase "(X of 100 points)" next to each dimension. "X" denotes the number of importance points assigned to the dimension by the Program Manager.
3. If the Program Manager desires that the scores assigned to dimensions during the previous measurement cycle be highlighted during the next measurement cycle, the previously assigned scores should appear in **BOLD** on each rating scale. After each successive measurement cycle, the score appearing in **BOLD** is updated (this procedure cannot be instituted until the second measurement cycle). Additionally, this procedure is documented on the cover sheet of the measurement instrument, as follows: "NOTE: SCORES GIVEN DURING PREVIOUS MEASUREMENT CYCLES WILL APPEAR IN BOLD ON EACH RATING SCALE."
4. The agreed upon schedule for conducting the customer satisfaction measurements is documented on the cover sheet, as follows: "This measurement instrument will be mailed to you (agreed upon periodicity)."
5. The agreed upon method for recalibrating the measurement instrument is documented on the cover sheet. If face-to-face meetings are to be used, the cover sheet should also indicate <u>when</u> these meetings will be held, as follows: "We will meet (agreed upon periodicity) in (agreed upon month) to recalibrate this measurement instrument."
6. If the Program Manager would like to provide written comments on the measurement instrument, adequate space for comments is provided.
7. Place the following rating scale next to each dimension of satisfaction appearing on the final measurement instrument:

How often does our actual performance meet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time								Always Meets								Exceeds 50% of time								Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10													

H. CALCULATING A CUSTOMER SATISFACTION SCORE

An overall score for customer satisfaction can be calculated with this measurement instrument. Overall scores can range from negative ten (indicating total dissatisfaction) to

positive ten (indicating total satisfaction). After the Program Manager has completed and returned the measurement instrument, the following procedure is used to calculate the overall customer satisfaction score:

1. Express each dimension's importance to the Program Manager in decimal form. For example, if the Program Manager has assigned 8 of 100 importance points to a particular dimension, that dimension's importance equals .08.
2. Multiply each dimension's importance (in decimal form) by the score given it by the Program Manager. For example, if an attribute's importance is .06 and is scored a "7" by the Program Manager, that dimension receives a positive .42. However, if the score given a dimension is negative (indicating his expectations have not been met) a negative dimensional score will result. This negative dimensional score will decrease the overall customer satisfaction score. The greater the importance of a particular dimension to the Program Manager, the more that dimension's score will affect the overall customer satisfaction score.
3. Add all dimensional scores (both positive and negative) to calculate the overall customer satisfaction score.

I. CONCLUSION

Proper implementation of this program requires an investment of several hours by both the Procuring Contracting Officer and the Program Manager. However, both parties will benefit from their time investment in this program. The Procuring Contracting Officer benefits by gaining valuable insights into what drives the Program Manager's personal satisfaction. These insights can then be utilized to improve first those areas of service considered most important to the Program Manager. The Program Manager benefits by receiving improved contracting service.

Example Customer Satisfaction Measurement Instrument Pages

CUSTOMER SATISFACTION METRIC TAILORED SPECIFICALLY FOR:

This instrument measures sixteen dimensions of customer satisfaction and their relative importance out of a total of 100 points, as follows:

Performance and Service	(10 points)
Availability	(9 points)
Responsiveness	(9 points)
Competence	(9 points)
Reliability	(7 points)
Communication	(7 points)
Innovativeness	(7 points)
Flexibility	(7 points)
Product Quality	(6 points)
Team Work	(6 points)
Empathy	(5 points)
Professionalism	(5 points)
Quality of Delivery	(4 points)
Negotiation Skills	(3 points)
Price	(3 points)
Tangibles	(3 points)

This measurement instrument will be mailed to you annually in the first week of January.

We will meet annually in early October to recalibrate this measurement instrument.

INSTRUCTIONS TO THE CUSTOMER

The following procedure is recommended for completing this measurement instrument:

1. **Score** each dimension of satisfaction by circling the appropriate number on the 20-point rating scale provided for each dimension. The number circled should correspond with your assessment of how our actual performance correlates to your expectations of performance for the dimension. The rating scale range is from positive 10 (indicating our actual performance always exceeds your expectations) to negative 10 (indicating our actual performance never meets your expectations).

2. **Annotate** the list of attributes under each dimension. This will help us to better understand your rationale for the score given each dimension. You have three options for marking an attribute:

   -Mark a "+" on the line provided next to each attribute if our actual performance concerning the attribute has exceeded your expectations.

   -Mark a "-" on the line provided next to each attribute if our actual performance concerning the attribute has not met your expectations.

   -Do not mark those attributes in which our actual performance has met your expectations.

3. **Modify** the measurement instrument as necessary. This will ensure the measurement instrument continues to accurately reflect your needs and expectations. You may modify the instrument in the following ways:

   -Adjust the importance weightings assigned to dimensions. On the cover sheet provided, cross out the current weighting assigned to a dimension and indicate the revised weighting. Please note that after all adjustments, the points assigned all dimensions must equal 100.

   -Create new attributes for dimensions and add them in the space entitled "Additional attributes?".

   -Delete attributes considered no longer relevant by crossing them out.

Price (3 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Contract/modification awarded for a fair and reasonable price

_____ Contract/modification awarded under "best value" criteria

_____ Maintains awareness of rate changes and notifies COR

_____ Additional attributes?

Comments _____

_____

_____

Empathy (5 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets									Meets 50% of time		Always Meets				Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Considers customer's best interests in decision-making

_____ Considers the needs of the COR

_____ Considers the impact of late or innaccurate products or services

_____ Consistently friendly and courteous

_____ Considers COR's contract vehicle preference

_____ Additional attributes?

Comments _____

_____

_____

Reliability (7 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Service right the first time

_____ Keeps promises

_____ Additional attributes?

Comments _____

_____

_____

Responsiveness (9 of 100 points)

How often does our actual performance meeet/exceed your performance expectations for this dimension?

Never Meets					Meets 50% of time					Always Meets					Exceeds 50% of time					Always Exceeds
-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10

(Mark "+", "-", or leave blank)

_____ Negotiates all task orders and contract modifications within 14 working days

_____ Provides a single point of contact for resolution of issues

_____ Returns phone calls within a half day

_____ Notifies program office same day when major delays occur during negotiations

_____ Notifies program office same day when PM involvement required to resolve a "roadblock"

_____ Authorizes incremental funding within 3 days (West Coast)

_____ Authorizes incremental funding within 3 days (East Coast)

_____ Executes crucial program documentation (APs, J&As, SSPs) promptly (West Coast

_____ Executes crucial program documentation (Aps, J&As, SSPs) promptly (East Coast)

_____ Additional attributes?

Comments _____

_____

_____

COMMENTS

Documentation Delivered to the Program Manager

From: Procuring Contracting Officer Date
To: Program Manager

Subj: REQUEST FOR ASSISTANCE TO DEVELOP A TAILORED CUSTOMER SATISFACTION MEASUREMENT INSTRUMENT
Encl: (1) Instructions to Program Managers
(2) Generic "Menu" of Customer Satisfaction Dimensions and Attributes

1. The (Organization Name) is establishing a customer satisfaction measurement program to assess the satisfaction level of supported Program Managers. The intent of this program is to establish a measurement instrument tailored for each individual Program Manager. Your assistance is requested to collect the data necessary to develop a measurement instrument tailored especially for you.

2. The data collection process will be conducted in two phases. The first phase involves the completion of several preliminary steps by you as outlined in enclosures (1) and (2). Enclosure (1) provides detailed instructions for completing the preliminary steps, while enclosure (2) provides the baseline document, which you will modify as the preliminary steps are completed. The second phase of the data collection process will be completed as a joint effort between us during a face-to-face meeting. This meeting will be scheduled after you have completed the preliminary steps discussed in enclosure (1) and returned enclosure (2).

3. This customer satisfaction measurement program is unique in several ways. First, it recognizes that each Program Manager - Procuring Contracting Officer relationship is distinguishable from all others based on the specific requirements of the program, as well as the knowledge, experience, personalities, and attitudes of the individuals involved. Therefore, effective customer satisfaction measurement demands that each relationship be uniquely measured. Second, our measurement instrument does not attempt to measure an attitude (Are you satisfied?), but rather how well those behaviors and activities which result in your satisfaction have been performed. In this way, the measurement instrument provides actionable data, pinpointing exactly which aspects of performance require improvement. Third, your performance expectations form the basis against which actual performance is measured. By identifying the deficiencies between your expectations and my performance, meaningful information is obtained. This information can then be utilized to improve the service provided you.

4. It is my firm belief that the time you invest in helping to establish this new customer satisfaction measurement program will be well-rewarded. This program will allow insight to be gained into what drives your personal satisfaction. With this knowledge, I can focus improvement efforts on those areas of most importance to you, my valued customer.

Very Respectfully,

INSTRUCTIONS TO PROGRAM MANAGERS

1. Enclosure (2) provides a menu of customer satisfaction dimensions and attributes which describe each dimension. From this menu, you will be able to quickly identify those dimensions and attributes that drive your personal satisfaction with the contracting services we provide. Customer satisfaction "dimensions" are broad factors researchers have determined to have an impact on the satisfaction formation process. The dimensions included in this menu were identified through a review of customer satisfaction literature and interviews with Program Managers and Procuring Contracting Officers. Satisfaction dimensions appear in bold typeface in enclosure (2).

2. "Attributes" are short phrases, or "bullets" used to more accurately describe each dimension of customer satisfaction. The attributes included in enclosure (2) were identified through an analysis of current customer satisfaction survey documents, as well as interviews with Program Managers and Procuring Contracting Officers. Together, these dimensions and attributes represent a generic menu of factors which could potentially have an affect on <u>any</u> Program Manager's personal satisfaction.

3. The data collection process is designed to transform this generic menu into a tailored set of dimensions and attributes which are both relevant and important to <u>your</u> personal satisfaction. The goals of this process are to:

   (a) identify which satisfaction dimensions and attributes you consider relevant to your personal satisfaction with the contracting service we provide;
   (b) ascertain your expectations of performance concerning the relevant attributes. (Your expectations will form the baseline against which our actual performance will be measured);
   (c) determine the relative importance of the attributes used to describe each dimension to you; and
   (d) determine the relative importance of each satisfaction dimension to you.

4. The following steps constitute Phase I of the data collection process:

   (a) Review enclosure (2), noting any attributes or dimensions which you consider to have little affect on your personal satisfaction. Draw a line through these attributes or dimensions. For example, if none of the attributes under the dimension entitled "Tangibles" are relevant to your personal satisfaction, then delete the entire dimension, including its attributes. However, if you consider some attributes under a dimension to be relevant, these attributes should be moved to another dimension before deleting the dimension, or the dimension should remain. Write the title of the dimension the attribute should be moved to on enclosure (2). The goal of this step is to eliminate dimensions and attributes that are irrelevant to you.
   (b) If considered appropriate, combine multiple dimensions into one overall dimension, or reassign attributes to different dimensions. For example, you may decide to combine several dimensions to generate one overall dimension more applicable to your personal satisfaction. When dimensions are combined,

all of the associated attributes not previously deleted are also combined beneath the overall dimension. Another possibility is to combine attributes from several dimensions beneath an entirely new dimension. Through this process, Program Managers have reduced the original list of sixteen dimensions to as few as four dimensions, but there is not one "correct" number. The goal of this step is to produce a concise list of dimensions (and associated attributes) you consider logical and appropriate for describing your personal satisfaction.

(c) Review each list of attributes which describe the dimensions included in the menu. If you believe a list of attributes describing a particular dimension to be deficient in any way, add appropriate attributes to that list. The space entitled "Additional attributes?" beneath each dimension has been provided for this purpose. The goal of this step is to ensure each list of attributes is accurate and complete.

(d) Consider whether a more meaningful title should be assigned to any of the relevant dimensions. For example, if you prefer the title "Timeliness" rather than "Responsiveness", make the necessary annotation on enclosure (2). The goal of this step is to assign a title you deem appropriate to each dimension.

(e) Rank the attributes beneath each dimension according to their perceived importance to you within that dimension. The small line to the left of each dimension is provided for this purpose. The goal of this step is to determine the degree to which each attribute affects your satisfaction.

(f) Upon completion of the above steps, return enclosure (2) with your revisions to (Organization Name). The revised enclosure (2) will be utilized during our face-to-face meeting to accomplish Phase II of the data collection process.

5. So that you may begin to formulate your input into the remainder of the data collection process, the steps that will be completed during phase II are provided, as follows:

(a) Each attribute which remains in enclosure (2) after phase I will be modified to incorporate <u>your specific expectations of performance</u>. By determining your expectations of performance, insight is gained into what level of performance must be delivered to ensure your satisfaction. The final satisfaction measurement instrument will allow you to indicate the degree to which our actual performance has met your performance expectations.

(b) After all the attributes describing a dimension have been modified to incorporate your performance expectations, you may desire to rerank the attributes according to their relative importance.

(c) "Importance" points will be assigned to each dimension which remains after phase I. A total of one hundred points will be spread among the relevant dimensions based on each dimension's relative importance to your personal satisfaction. By determining the relative importance of each dimension to you, insight is gained into whether any particular aspect of our performance should be given special attention. Another benefit of assigning these "importance" points is that it allows the measurement instrument to calculate a numerical "score" for customer satisfaction.

(d) The measurement instrument may be structured in several ways. Your opinion will be obtained concerning which structure you prefer for your tailored instrument. Additionally, we will agree on a schedule for when your satisfaction will be measured, and how the measurement instrument will be kept up-to-date as your needs and expectations change.

GENERIC "MENU" OF CUSTOMER SATISFACTION DIMENSIONS AND ATTRIBUTES

Availability

_____ Contracting office has adequate hours of operation
_____ Contracting office physically located close to program office
_____ Assists program office personnel seeking help
_____ Number of contracting personnel commensurate with workload
_____ Provides adequate level of attention to program office
_____ Contracting support continues when PCO absent (leave, TDY, etc.)
_____ Additional attributes?

Responsiveness

_____ Returns phone calls promptly
_____ Produces required correspondence promptly
_____ Negotiates Undefinitized Contract Actions promptly
_____ Executes Delivery Orders promptly
_____ Executes crucial program documentation (APs, J&As, SSPs) promptly
_____ Negotiates contract modifications promptly
_____ Notifies program office promptly when major delays occur during negotiations
_____ Notifies PM promptly when PM involvement required to resolve a "roadblock"
_____ Additional attributes?

Quality of Delivery

_____ Competition sought to maximum extent
_____ Follows procurement regulations
_____ Uses consistent/standardized procedures and processes
_____ Provides a single point of contact for resolution of issues
_____ Additional attributes?

Product Quality

_____ Contracts/modifications contain all required clauses
_____ Contracts awarded to experienced company
_____ Contracts awarded to competent company
_____ No major mistakes in contracts/modifications
_____ Contracts/modifications structured to meet program requirements
_____ Contract/modification structured to avoid unnecessary contract management
_____ Contracts/modifications promote effective management of contract costs
_____ Contracts/modifications do not incorporate unnecessary CDRLs
_____ Contracts/modifications require a minimum of paper deliverables
_____ RFPs address life cycle costs
_____ Additional attributes?

Price

_____ Contracts/modifications awarded for a fair and reasonable price
_____ Contracts/modifications awarded under "best value" criteria
_____ Additional attributes?

Performance and Service

_____ Attends all key program meetings
_____ Meets deadlines (urgent through routine)
_____ Completes contract awards/modifications on schedule
_____ Tracks contract performance
_____ Maintains contract file properly
_____ Additional attributes?

Tangibles

_____ Contracting office appears clean and organized
_____ Contracting office has compatible computer technology
_____ Contracting office effectively utilizes telecommunication (video-conferencing, e-mail)
_____ Contracting personnel appear neat and professional
_____ Additional attributes?

Empathy

_____ Considers the impact of late or inaccurate products or services
_____ Considers the needs of the program office
_____ Considers program office's best interests in decision-making
_____ Considers program offices's contract vehicle preference
_____ Consistently friendly and courteous
_____ Additional attributes?

Reliability

_____ Service right the first time
_____ Keeps promises
_____ Additional attributes?

Communication

_____ Communicates in easily understood terms/language
_____ Explains complex contracting issues
_____ Answers program office questions
_____ Answers external stakeholder questions
_____ Explains limitations and possibilities of potential contract vehicles
_____ Promulgates new developments in procurement policy
_____ Explains to functional personnel what is needed from them to perform the contracting function
_____ Intervenes when necessary with functional experts (DCMC, Legal, etc.) to resolve disputes without need for PM involvement
_____ Additional attributes?

Competence

_____ Intimately familiar with a program's contracts
_____ Understands the program Acquisition Strategy
_____ Understands the basics of the technology being procured
_____ Expert in proper SOW and specification formats
_____ Well-versed in broad range of contracting subject areas
_____ Keeps abreast of latest developments in acquisition
_____ Provides accurate and reliable information
_____ Understands advantages and disadvantages of every contract vehicle
_____ Additional attributes?

Innovativeness

_____ Achieves program office objectives while operating within procurement process constraints
_____ Eliminates unnecessary/non value-added steps in the procurement process
_____ Develops creative contracting solutions to problems
_____ Designs contracts that provide flexibility to the program
_____ Reduces overall risk to the program
_____ Reduces procurement lead time
_____ Additional attributes?

Flexibility

_____ Responds easily to changes in program requirements
_____ Considers all possibilities for meeting program office needs
_____ More concerned with what can be legally accomplished than what law prevents
_____ Generates options quickly to resolve program problems
_____ Has a "Can Do" attitude
_____ Additional attributes?

Team Work

_____ Has a "systems" perspective not just a "contracting" perspective
_____ Works with and delegates appropriate functions to DCMC personnel
_____ Teaches and coaches junior personnel
_____ Discusses contract/modifications changes with program office personnel
_____ Provides status to program office during the procurement process
_____ Additional attributes?

Professionalism

_____ Acts in an ethical manner
_____ Well-trained and experienced in the contracting process
_____ Empowered to accomplish assigned tasks
_____ Adheres to program schedules
_____ Establishes processes/procedures that achieve superior results
_____ Knows how to prioritize workload without direction from PM
_____ Coordinates and follows-up on assigned tasks/projects
_____ Liaisons effectively between program office and other functional organizations in clarifying issues, resolving concerns, etc.
_____ Additional attributes?

Negotiation Skills

_____ Concludes negotiations on time to meet contract/modification award date
_____ Negotiates a "best deal" for the Government
_____ Negotiates a "fair deal" for the Government and the contractor
_____ Negotiates a "win - win" agreement
_____ Promotes settlement (does not get personal or defensive)
_____ Influences contractor to resolve disputes quickly (resoluteness of purpose)
_____ Understands negotiation "must haves" versus "should haves"
_____ Motivates performance from contractors
_____ Additional attributes?

APPENDIX E

LIST OF DELETED ATTRIBUTES

LIST OF DELETED ATTRIBUTES

Attribute	Dimension
Contracting office has adequate hours of operation	Availability
Provides adequate level of attention to program office	Availability
Produces required correspondence promptly	Responsiveness
Negotiates Undefinitized Contract Actions promptly	Responsiveness
Contracts/modifications contain all required clauses	Product Quality
Contracts/modifications require a minimum of paper deliverables	Product Quality
RFPs address life cycle costs	Product Quality
Tracks contract performance	Performance/Service
Contracting office appears clean and organized	Tangibles
Explains complex contracting issues	Communication
Understands the program Acquisition Strategy	Competence
Understands the basics of the technology being procured	Competence
Negotiates a "best deal" for the Government	Negotiation Skills

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